SECTION ADP В AUTOMATIC DRIVE POSITIONER

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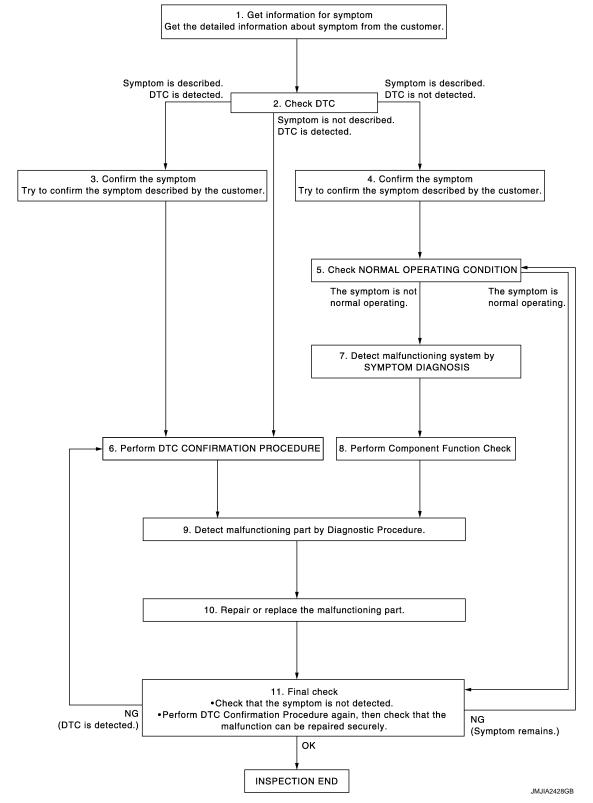
< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000005141468

OVERALL SEQUENCE



DETAILED FLOW

Revision: 2010 March

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM	
Get the detailed information from the customer about the symptom (the condition and the environment whe the incident/malfunction occurred).	
>> GO TO 2.	ŀ
2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM	
Check "Self Diagnostic Result" with CONSULT-III. Refer to ADP-158, "DTC Index"	(
Is any symptom described and any DTC is displayed?	
Symptom is described, DTC is displayed.>>GO TO 3. Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4.	[
3. CONFIRM THE SYMPTOM	F
Try to confirm the symptom described by the customer.	
>> GO TO 6.	I
4.CONFIRM THE SYMPTOM	1
Try to confirm the symptom described by the customer.	
Ty to commit the symptom described by the customer.	(
>> GO TO 5.	
5. CHECK NORMAL OPERATING CONDITION	
Check normal operating condition. Refer to ADP-224, "Description".	
Is the incident normal operation?	
YES >> INSPECTION END NO >> GO TO 7.	
6. PERFORM DTC CONFIRMATION PROCEDURE	A
Perform the confirmation procedure for the detected DTC.	—
Is the DTC displayed?	
YES >> GO TO 8.	
NO >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . 7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS	
Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in sta 4, and determine the trouble diagnosis order based on possible causes and symptom.	•
>> GO TO 8.	
8.PERFORM COMPONENT FUNCTION CHECK	
Perform the component function check for the isolated malfunctioning point.	
>> GO TO 9. 9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE	(
	<u> </u>
Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during to component diagnosis.	ne
>> GO TO 10.	
10.repare or replace	

Repair or replace the malfunctioning part.

< BASIC INSPECTION >

>> GO TO 11.

11.FINAL CHECK

Perform the DTC confirmation procedure (if DTC is detected) or component function check (if no DTC is detected) again, and then check that the malfunction can be repaired securely.

Are all malfunctions corrected?

YES >> INSPECTION END Symptom is detected.>> GO TO 5. DTC is detected.>> GO TO 6.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

Each function is reset to the following condition when the battery terminal is disconnected.

Function	Condition	Procedure	
Memory (Seat, steering, mirror)	Erased	Perform memory storing	
Intelligent Key interlock	Erased	Perform memory storing	
Seat synchronization	OFF	—	

NOTE:

When disconnecting the battery terminal or replacing the driver seat control unit, DTC, registered items of memory storing, and details of system setting detected in the past are erased. Perform operation after checking the contents.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-10, "SYSTEM INITIALIZATION : Description".

>> GO TO 2.

2.SYSTEM SETTING

Perform system setting. Refer to ADP-11, "SYSTEM SETTING : Description".

>> GO TO 3.

3.MEMORY STORING

Perform memory storing. Refer to ADP-10, "MEMORY STORING : Description".

>> END ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

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Each function is reset to the following condition when the driver seat control unit is replaced.

Function	Condition	Procedure	N
Memory (Seat, steering, mirror)	Erased	Perform memory storing	
Intelligent Key interlock	Erased	Perform memory storing	
Seat synchronization	OFF	-	0

NOTE:

When disconnecting the battery terminal or replacing the driver seat control unit, DTC, registered items of memory storing, and details of system setting detected in the past are erased. Perform operation after checking the contents.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

1.SYSTEM INITIALIZATION

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

Perform system initialization. Refer to ADP-10. "SYSTEM INITIALIZATION : Description".

>> GO TO 2.

2.system setting

Perform system setting. Refer to ADP-11, "SYSTEM SETTING : Description".

>> GO TO 3.

3.MEMORY STORING

Perform memory storing. Refer to ADP-10, "MEMORY STORING : Description".

>> END SYSTEM INITIALIZATION

SYSTEM INITIALIZATION : Description

When disconnecting battery negative terminal or replacing control unit, always perform the system initialization. Otherwise, the backward operation for power walk-in function does not activate normally.

SYSTEM INITIALIZATION : Special Repair Requirement

INITIALIZATION PROCEDURE

1. STEP-1

Slide the seat to the front edge.

NOTE:

- STEP-1 is the initialization procedure for power walk-in function.
- If the seat sliding position is already at the front edge, slide the seat rearward once, and then slide it to the front edge again.

>> END MEMORY STORING

MEMORY STORING : Description

Always perform the memory storage when the battery terminal is disconnected or the driver seat control unit is replaced. The memory function and Intelligent Key interlock function will not operate normally if no memory storage is performed.

MEMORY STORING : Special Repair Requirement

Memory Storage Procedure

Two positions for the driver seat, steering column and outside mirror can be stored for memory operation by following procedure.

1.STEP 1

Shift AT selector lever to P position (AT model) or applied parking brake (MT model).

>> GO TO 2.

2.STEP 2

Turn ignition switch ON.

>> GO TO 3.

3.STEP 3

Adjust driver seat, steering column and outside mirror position manually.

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< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

А >> GO TO 4. **4**.STEP 4 1. Push set switch. В NOTE: • Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds. Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch. NOTE: If memory is stored in the same memory switch, the previous memory will be deleted. D Do you need linking of Intelligent Key? YES >> GO TO 6. NO >> GO TO 5. Е **5.**STEP 5 Confirm the operation of each part with memory operation. F >> END **6.**STEP 6 Turn ignition switch OFF (LOCK). Н >> GO TO 7. 7.STEP 7 Press and release set switch. Memory switch indicator is illuminated for 5 seconds. During memory switch indicator is illuminated, press Intelligent Key unlock button while pressing memory switch 1 or 2. NOTE: Memory switch indicator lamp blinks for 5 seconds when registration is complete. ADP >> GO TO 8. **8.**STEP 8 Κ Confirm the operation of each part with memory operation and Intelligent Key interlock operation. L >> END SYSTEM SETTING M SYSTEM SETTING : Description INFOID:000000005141477 The setting of the automatic driving positioner system can be changed using the set switch. Ν SYSTEM SETTING : Special Repair Requirement INFOID:000000005141478 SETTING PROCEDURE **1**.STEP-1 Set the vehicle to the following condition. Ρ Ignition position: ACC A/T selector lever: P position (A/T models) • Parking brake: Applied only (M/T models) >> GO TO 2.

2.STEP-2

Press set switch and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

- Seat synchronization are ON : Memory switch indicator blink two times.
- Seat synchronization are OFF : Memory switch indicator blink once.

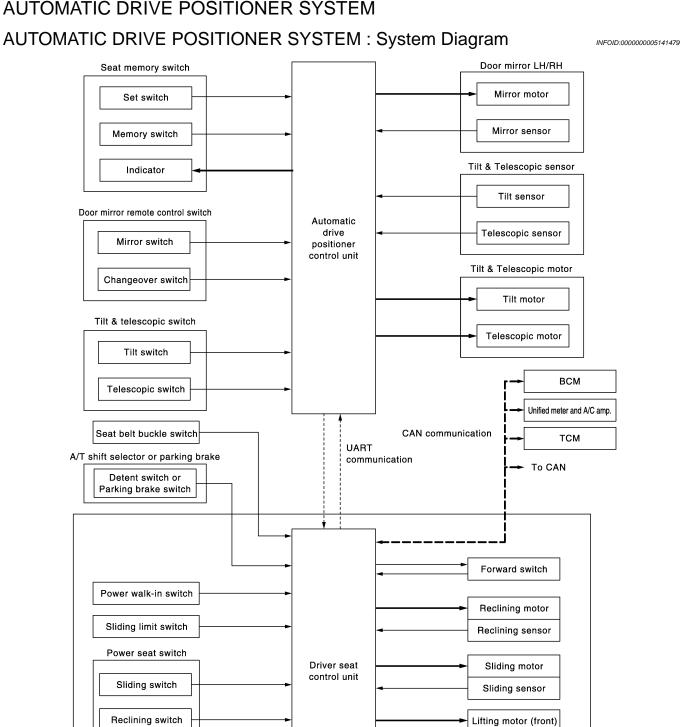
NOTE:

• After memory setting registration, by pushing set switch for approximately 10 seconds, memory switch indicator lamp turns 4 seconds. turns OFF, blinks 1 or 2 times, and then the switching operation is complete. Push and hold set switch during the switching operation.

>> END.



SYSTEM DESCRIPTION AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM



Lifting sensor (front)

Lifting motor (rear)

Lifting sensor (rear)

Lifting switch (front)

Lifting switch (rear)

Driver seat

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< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

OUTLINE

The system automatically moves the driver seat, steering column and door mirror position by the driver seat control unit and the automatic drive positioner control unit. The driver seat control unit corresponds with the automatic drive positioner control unit by UART communication.

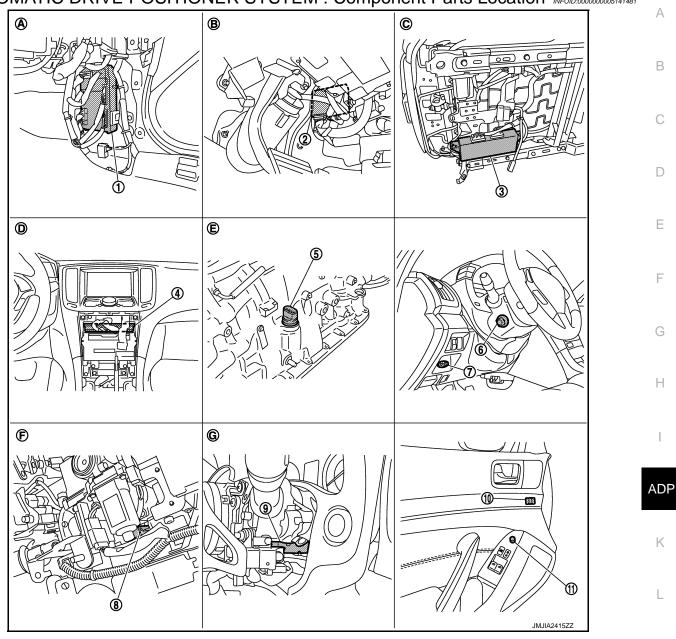
Function	Description
Manual function	The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.
Seat synchronization function	The positions of the steering column and door mirror are adjusted to the proper position automat- ically while linking with manual operation [seat sliding, seat lifting (rear) or seat reclining].
Memory function	The seat, steering column and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2).
Power walk-in function	The seat is made to advance when the seat back of driver seat is folded down and press the walk- in switch. The seat is made to retreat to former position when the seat back of driver seat is folded up and press the walk-in switch.
Intelligent Key interlock function	Perform memory operation, exiting operation and entry operation by Intelligent Key unlock opera- tion or driver side door request switch unlock operation.

NOTE:

The lumbar support system and the side support system are controlled independently with no link to the automatic drive positioner system.

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOLD:000000005141481



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52
- 5. A/T assembly F157
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)
- 6. Tilt & telescopic switch M31
 9. Telescopic sensor M48

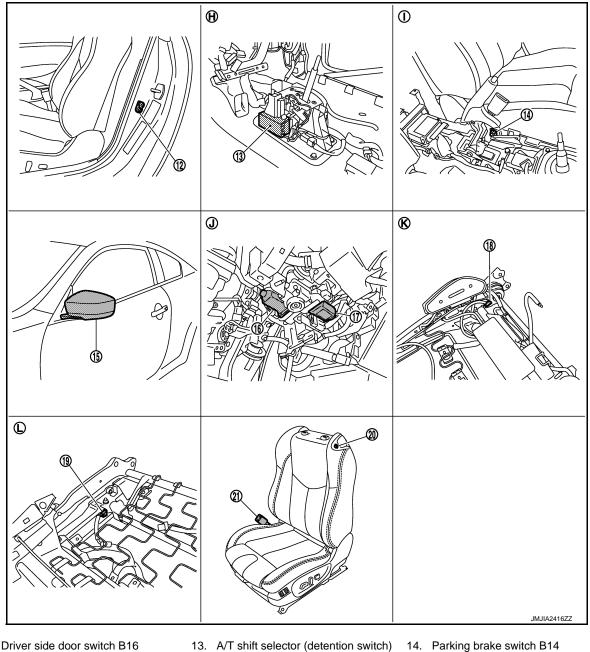
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- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 12. Driver side door switch B16
- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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2.	Reclining motor B523	23.	Reclining switch (Power seat swite B510	ch)	24.	Sliding, lifting switch (Power seat switch) B510	
25.	Sliding sensor B526	26.	Lifting motor (fror	nt) B527	27.	Sliding motor B525	G
8.	Lifting motor (rear) B529						
Λ.	View with seat cushion pad and seat- back pad are removed.	N.	Backside of seat	cushion			Н

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:000000005141482

ADD

CONTROL UNITS

Item	Function
Driver seat control unit	 Main units of automatic drive positioner system. It is connected to the CAN. It communicates with the automatic drive positioner control unit via UART communication.
Automatic drive positioner control unit	 It communicates with the driver seat control unit via UART communication. Perform various controls with the instructions of driver seat control unit. Perform the controls of the tilt & telescopic, door mirror and the seat memory switch.
BCM	 Transmit the following status to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE Ignition switch position: ACC/ON Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) Key ID Key switch: Insert/Pull out Intelligent Key Starter: CRANKING/OTHER
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communi- cation.
ТСМ	Transmit the shift position signal (P range) to the driver seat control unit via CAN communication.

INPUT PARTS

Switches

< SYSTEM DESCRIPTION >

Item	Function
Key slot	The key switch is installed to detect the key inserted/removed status.
Driver side door switch	Detect front door (driver side) open/close status.
A/T shift selector (detention switch)	Detect the P range position of A/T selector lever. (A/T models)
Parking break switch	Detect the parking brake status. (M/T models)
Set switch	The registration and system setting can be performed with its operation.
Memory switch 1/2	The registration and operation can be performed with its operation.
Power seat switch	 The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch.
Power walk-in switch	Perform the power walk-in operation by operating the power walk-in switch.
Sliding limit switch	Detect the front end position of seat sliding during the power walk-in function front- ward operation.
Seat belt buckle switch	Detect the seat belt fastening/releasing condition.
Forward switch	Detect the folded up/folded down condition of seatback that is the operation condi- tion of power walk-in function.
Tilt & telescopic switch	 The following switch is installed. Tilt switch Telescopic switch The specific parts can be operated with the operation of each switch.
Door mirror remote control switch	 The following switch is installed. Mirror switch Changeover switch The specific parts can be operated with the operation of each switch.

Sensors

Item	Function
Door mirror sensor (driver side/passenger side)	Detect the upward/downward and leftward/rightward position of outside mirror face.
Tilt & telescopic sensor	Detect the upward/downward and forward/backward position of steering column.
Lifting sensor (front)	Detect the upward/downward position of seat lifting (front).
Lifting sensor (rear)	Detect the upward/downward position of seat lifting (rear).
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the forward/backward position of seat.

OUTPUT PARTS

Item	Function		
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.		
Tilt & telescopic motor	Move the steering column upward/downward and frontward/rearward.		
Lifting motor (front)	Move the seat lifting (front) upward/downward.		
Lifting motor (rear)	Move the seat lifting (rear) upward/downward.		
Reclining motor	Tilt and raise up the seatback.		
Sliding motor	Slide the seat forward/backward.		
Memory indicator	Illuminates or blinks according to the registration/operation status.		

SLEEP MODE

• The seat control unit adopts the sleep mode to reduce the electric power consumption.

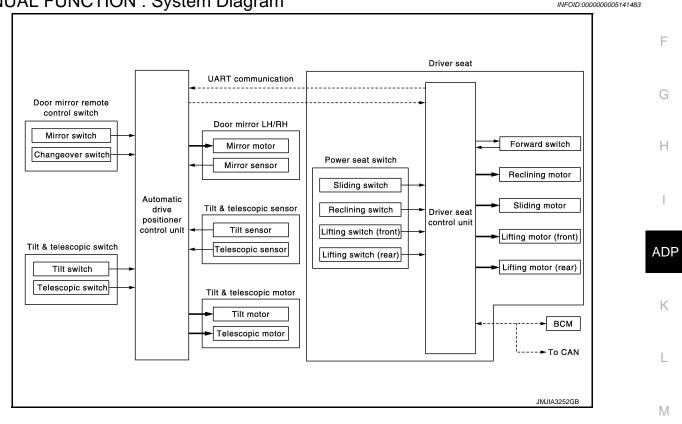
ADP-18

< SYSTEM DESCRIPTION >

MANUAL FUNCTION

• The sleep mode is activated when all of the following condition are fulfilled. Ignition switch turn OFF (steering LOCK position) 1. А No load is applied to the seat control 2. The seat control unit 45seconds timer in not activated 3. Set switch and memory switch (1 and 2) turn OFF 4. В WAKE-UP MODE The sleep mode is cancelled when any status change is detected for the followings. CAN communication 1 2. Power seat switch 3. Set switch and memory switch (1 and 2) 4. Power walk-in switch D 5. Door mirror switch Steering column switch

MANUAL FUNCTION : System Diagram



MANUAL FUNCTION : System Description

OUTLINE

6.

The driving position (seat, steering column and door mirror position) can be adjusted manually with power seat switch, tilt & telescopic switch and door mirror remote control switch.

OPERATION PROCEDURE

- Operate power seat switch, tilt & telescopic switch or door mirror remote control switch. 1.
- The driver seat, steering column or door mirror operates according to the operation of each switch. 2.

DETAIL FLOW

Seat

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< SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition
1	Power seat switch (sliding, lifting, reclin- ing)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding, lifting, reclin- ing)	The driver seat control unit outputs signals to each motor accord- ing to the power seat switch input signal.

Tilt & Telescopic

Order	Input	Output	Control unit condition
1	Tilt & telescopic switch	_	The tilt & telescopic switch signals are inputted to the automatic drive positioner control unit when the tilt & telescopic switch are operated.
2	_	Motors (Tilt, telescopic)	The automatic drive positioner control unit actuates each motor according to the operation of the tilt & telescopic switch.
3	Sensors (Tilt, telescopic)	_	The automatic drive positioner control unit recognizes any oper- ation limit of each actuator via each sensor and will not operate the actuator anymore at that time.*

*: Tilt does not operates upward when tilt sensor value is less than 1.1 V, tilt does not operate downward when the sensor value is more than 3.9 V. Telescopic does not operates backward when telescopic sensor value is less than 0.5 V, telescopic does not operate forward when the sensor value is more than 4.5 V.

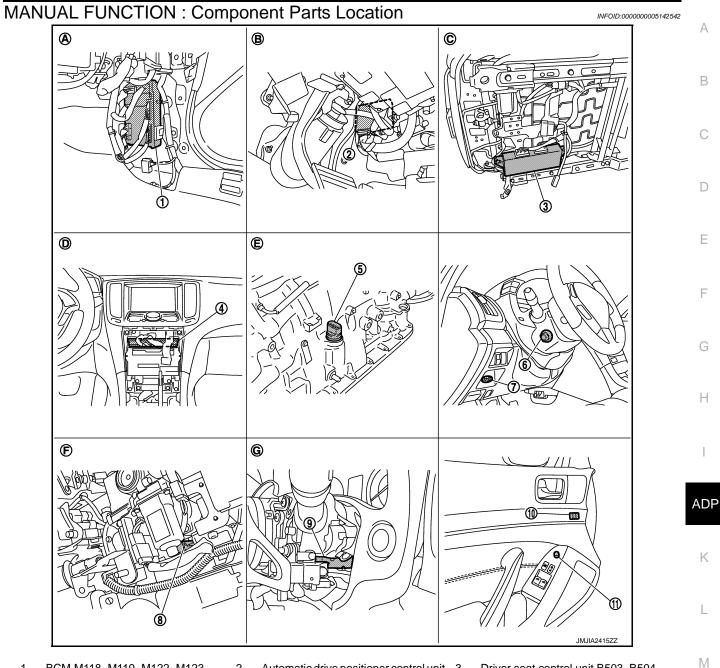
Door Mirror

Order	Input	Output	Control unit condition
1	Door mirror remote control switch	_	The door mirror remote control switch signal is inputted to the au- tomatic drive positioner control unit when the door mirror remote control switch is operated.
2	_	Motors (Door mirror motor)	The automatic drive positioner control unit actuates each motor according to the signal from the door mirror remote control switch.
3	Sensors (Mirror)	_	The automatic drive positioner control unit monitors the input of mirror sensor. It stops the operation if the input reaches the operation limit.

NOTE:

The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit via UART communication.

< SYSTEM DESCRIPTION >



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

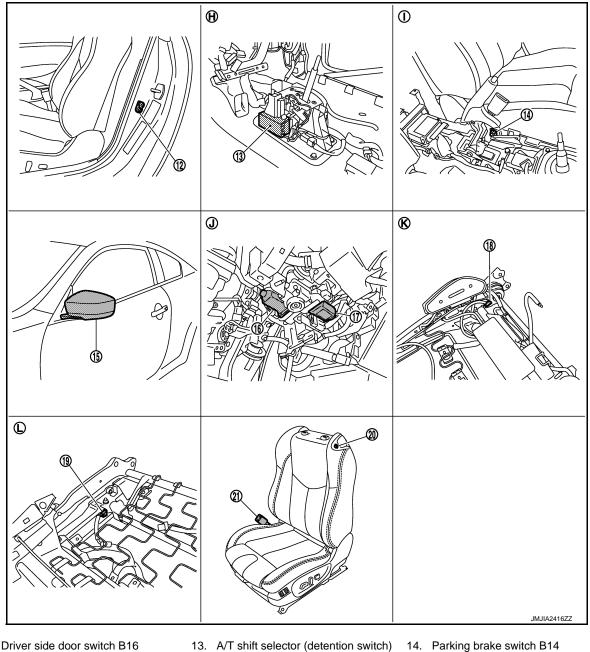
- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52
- 5. A/T assembly F157
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)
- 6. Tilt & telescopic switch M31
 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)

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F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 12. Driver side door switch B16
- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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						JMJIA2455ZZ		F
22.	Reclining motor B523	23.	Reclining switch (Power seat sw B510		24.	Sliding, lifting switch (Power seat switch) B510		0
25.	Sliding sensor B526	26.	Lifting motor (fro	ont) B527	27.	Sliding motor B525		G
28.	Lifting motor (rear) B529							
М.	View with seat cushion pad and seat- back pad are removed.	N.	Backside of sea	t cushion				Н
MAN	UAL FUNCTION : Com	oor	ent Descr	iption		INFOID:00000	00005141486	I

CONTROL UNITS

Item	Function
Driver seat control unit	 Operates the specific seat motor with the signal from the power seat switch. Transmits the ignition switch signal (ACC/ON) via UART communication to the automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the specific motor with the signal from tilt & telescopic switch or door mir- ror remote control switch.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. Ignition position: ACC/ON

INPUT PARTS

Switches

Item	Function	-
Power seat switch	 The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch. 	O P
Tilt & telescopic switch	 The following switch is installed. Tilt switch Telescopic switch The specific parts can be operated with the operation of each switch. 	_

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< SYSTEM DESCRIPTION >

Item	Function
Forward switch	Detect folded down or folded up of the seat back.
Door mirror remote control switch	 The following switch is installed. Mirror switch Changeover switch The specific parts can be operated with the operation of each switch.

Sensors

Item	Function
Tilt & telescopic sensor	Detect the upward/downward & forward/backward position of steering column.
Door mirror sensor (driver side / passenger side)	Detect the upward/downward and leftward/rightward position of outside mirror face.

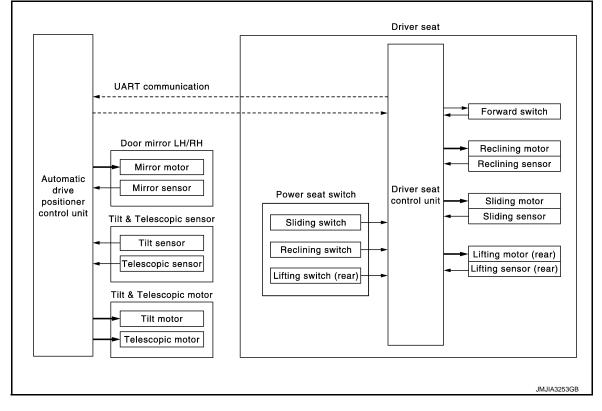
OUTPUT PARTS

Item	Function
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.
Lifting motor (front)	Move the seat lifter (front) upward/downward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION : System Diagram

INFOID:000000005141487



SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:000000005141488

OUTLINE

Revision: 2010 March

ADP-24

2009 G37 Convertible

< SYSTEM DESCRIPTION >

The steering column position and door mirror position is adjusted to the position automatically according to the direction and distance of seat movement when performing the manual operation of sliding, reclining or lifting (rear). This function saves adjusting the mirror and steering column when adjusting the seat. **NOTE:**

This function is set to OFF before delivery. (initial setting) For the system setting procedure. Refer to <u>ADP-11, "SYSTEM SETTING : Description"</u>.

OPERATION PROCEDURE

1. Turn ignition switch ON.

2. Adjust seat position [sliding, reclining, lifting (rear)].

3. The steering and outside mirror is adjusted automatically.

NOTE:

• The seat synchronization function will not operate if seat adjusting value is more than limit value.

Item	Limit value	•
Seat sliding	76 mm	E
Seat reclining	9.1 degrees	-
Seat lifter (rear)	20 mm	F

• The seat synchronization function will not operate if the steering column or door mirror moves to the operating end while this function is operating. Perform memory function or drive the vehicle at vehicle speed of 7 km/h or more once to activate this function again.

If the seat position is uncomfortable after the adjustment, seat position can be adjusted easily by memory
operation.

OPERATION CONDITION

Satisfy all of the following items. The seat synchronization function is not performed if these items are not satisfied.

Item	Request status	
System setting	ON	
Ignition position	ON	
Seat back	Folded up	
A/T selector lever (A/T models)	P position	
Parking break (M/T models)	Applied	
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch 	OFF (Not operated)	

DETAIL FLOW

When performing the sliding, reclining or lifting (rear) operation in manual function, the driver seat control unit performs the seat synchronization function as follows.

Order	Input	Output	Control unit condition
1	Sensors [Sliding, reclining, lifting (rear)]	_	The driver seat control unit judges the direction and distance of seat movement according to the signal input from each seat sensor during manual operation.
2	_	Motors (Tilt, telescopic, out- side mirror) ing to the direction and distance of seat movement to ic drive positioner control unit via UART communication	Driver seat control unit requests the operation to position accord- ing to the direction and distance of seat movement to the automat- ic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
	Sensors (Tilt, telescopic, outside mirror)	_	Driver seat control unit stops the operation of each motor when the value of each sensor that is input to automatic drive positioner control unit via UART communication reaches the target address.

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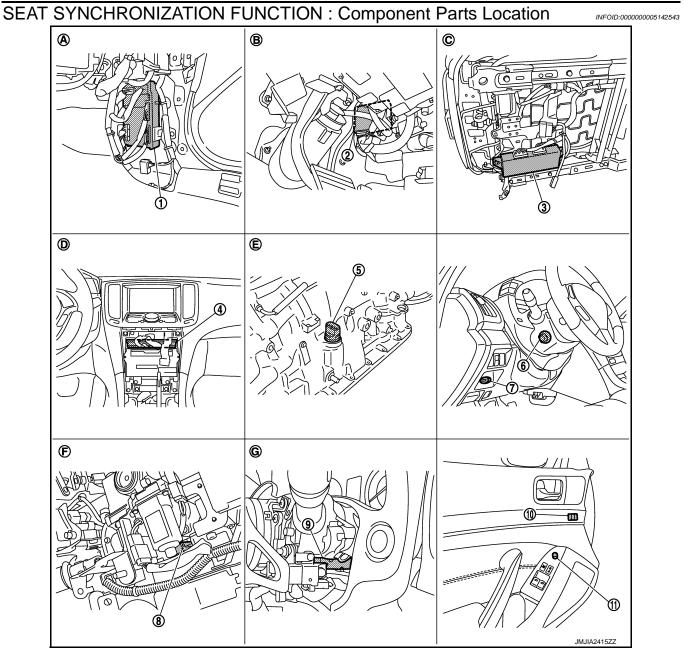
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< SYSTEM DESCRIPTION >

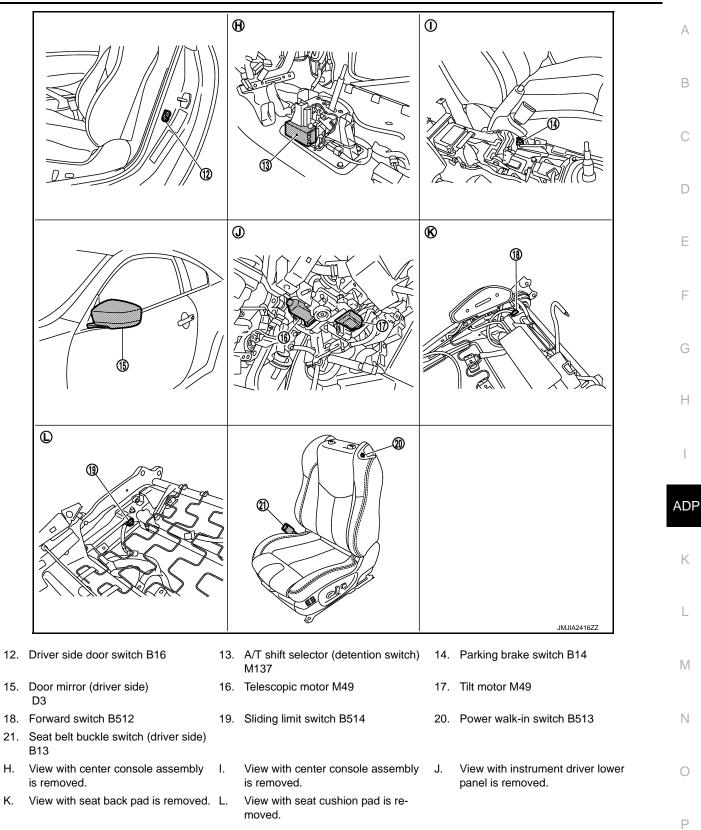


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

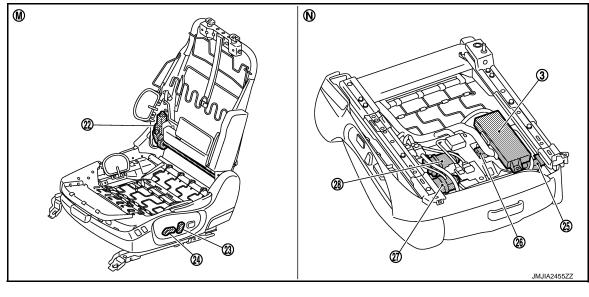
- 2. Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F157
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



< SYSTEM DESCRIPTION >



22. Reclining motor B523

25. Sliding sensor B526

- 23. Reclining switch (Power seat switch) B510
- 26. Lifting motor (front) B527
- 24. Sliding, lifting switch (Power seat switch) B510
- 27. Sliding motor B525

- 28. Lifting motor (rear) B529
- M. View with seat cushion pad and seat- N. Backside of seat cushion back pad are removed.

SEAT SYNCHRONIZATION FUNCTION : Component Description

INFOID:000000005141490

CONTROL UNITS

Item	Function
Driver seat control unit	Operates the specific seat motor with the signal from the power seat switch.
Automatic drive positioner control unit	Operates the steering motor and door mirror with the signal from the driver seat control unit.

INPUT PARTS

Switches

Item	Function
Power seat switch	 The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch.
Forward switch	Detect folded down or folded up of the seat back.

Sensors

Item	Function
Door mirror sensor (driver side/passenger side)	Detect the upward/downward and leftward/rightward position of outside mirror face.
Tilt & telescopic sensor	Detect the upward/downward and forward/backward position of steering column.
Lifting sensor (rear)	Detect the upward/downward position of seat lifter (rear).

< SYSTEM DESCRIPTION >

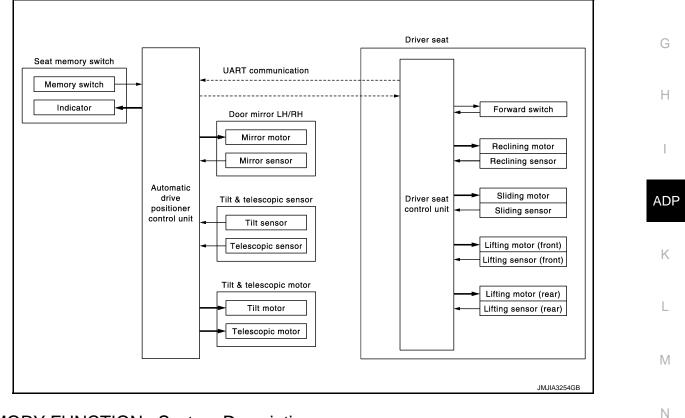
Item	Function	^
 Reclining sensor	Detect the tilt of seatback.	A
 Sliding sensor	Detect the frontward/rearward position of seat.	

OUTPUT PARTS

Item	Function
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

MEMORY FUNCTION

MEMORY FUNCTION : System Diagram



MEMORY FUNCTION : System Description

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INFOID:000000005141491

OUTLINE

The driver seat control unit can store the optimum driving positions (seat, steering column and door mirror position) for 2 people. If the front seat position is changed, one-touch (pressing desired memory switch for more than 0.5 second) operation allows changing to the other driving position. **NOTE:**

Further information for the memory storing procedure. Refer to <u>ADP-10, "MEMORY STORING : Description"</u>.

OPERATION PROCEDURE

- 1. Turn ignition switch ON
- 2. Press desired memory switch for more than 0.5 second.
- 3. Driver seat, steering and door mirror will move to the memorized position.

OPERATION CONDITION

Revision: 2010 March

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< SYSTEM DESCRIPTION >

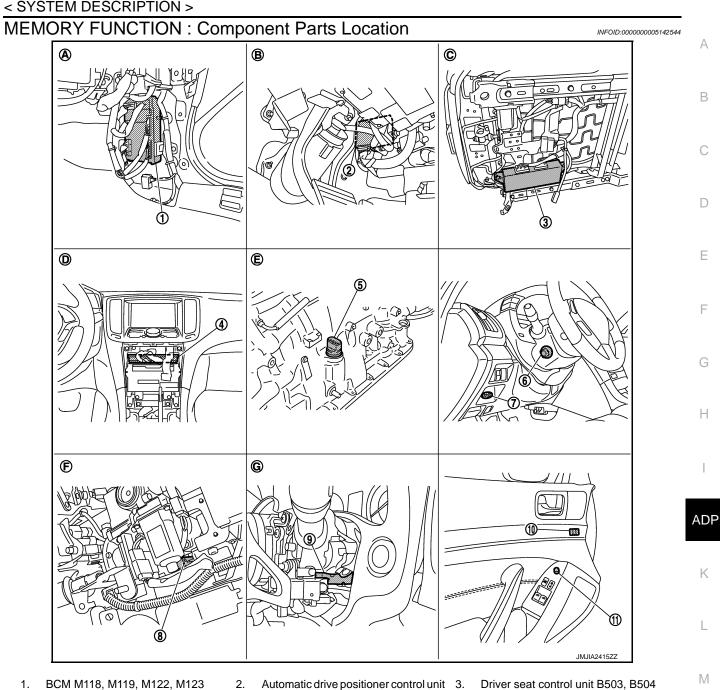
Satisfy all of the following items. The memory function is not performed if these items are not satisfied.

Item	Request status
Ignition position	ON
Seat back	Folded up
A/T selector lever (A/T models)	P position
Parking break (M/T models)	Applied
Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch 	OFF (Not operated)

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Memory switch	_	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated. Memory switch signal is output to driver seat control unit via UART communication.
2	_	Motors (Seat, steering, door mirror)	Driver seat control unit operates each motor of seat when it recogniz- es the memory switch pressed for 0.5 second or more and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit op- erates each motor.
		Memory switch Indica- tor	Driver seat control unit requests the flashing of memory indicator to automatic drive positioner control unit via UART communication while either of the motors is operating. The automatic drive positioner con- trol unit illuminates the memory indicator.
3	Sensors (Seat, steering, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the steering column and outside mirror are monitored with each sensor signal that is input from auto drive positioner control unit via UART communication. Driver seat control unit stops the operation of each motor when each part reach- es the recorded address.
4	_	Memory switch Indica- tor	Driver seat control unit requests the illumination of memory indicator to auto drive positioner control unit via UART communication after all motors stop. The auto driving positioner control unit illuminates the memory indicator for 5 seconds.

< SYSTEM DESCRIPTION >



- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- 10. Seat memory switch D5
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

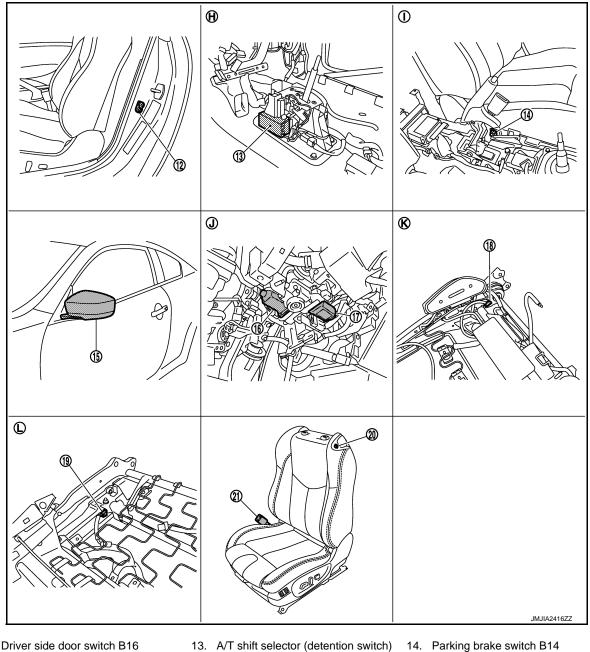
- Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52
- A/T assembly F157 5.
- Tilt sensor M48 8.
- 11. Door mirror remote control switch D17
- View with instrument driver lower Β. panel removed
- E. A/T assembly (TCM is built in A/T assembly)
- 6. Tilt & telescopic switch M31 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side) 0

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F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



- 12. Driver side door switch B16
- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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22.	Reclining motor B523	23. Reclining s (Power sea B510			Sliding, lifting switch (Power seat switch) B510	
25.	Sliding sensor B526	26. Lifting mot	or (front) B527		Sliding motor B525	G
28.	Lifting motor (rear) B529				2020	
M.	View with seat cushion pad and seat- back pad are removed.	N. Backside o	of seat cushion			Н
MEM	IORY FUNCTION : Com	ponent De	escription		INFOID:0000000514149	4

CONTROL UNITS

Item	Function
Driver seat control unit	 The address of each part is recorded. Operates each motor of seat to the registered position. Requests the operations of steering column and door mirror to automatic drive positioner control unit
utomatic drive positioner control unit	Operates the steering column and door mirror with the signal from the driver seat control.

INPUT PARTS

Switches

Item	Function	-
Memory switch 1/2	The registration and memory function can be performed with its operation.	N
Forward switch	Detect folded down or folded up of the seat back.	_

Sensors

Item	Function
Door mirror sensor (driver side/passenger side)	Detect the upward/downward and leftward/rightward position of outside mirror face.
Tilt & telescopic sensor	Detect the upward/downward and forward/backward position of steering column.
Lifting sensor (front)	Detect the upward/downward position of seat lifting (front).
Lifting sensor (rear)	Detect the upward/downward position of seat lifting (rear).

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< SYSTEM DESCRIPTION >

Item	Function
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the forward/backward position of seat.

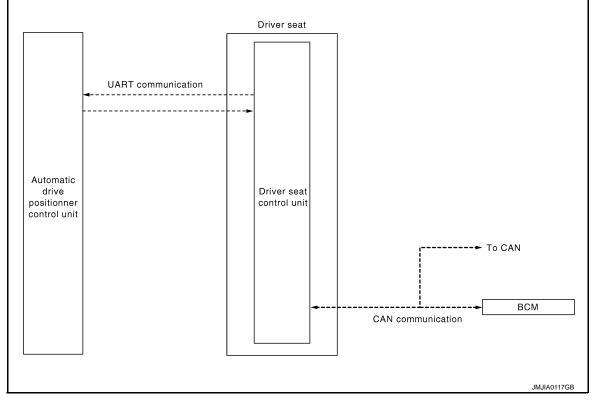
OUTPUT PARTS

Item	Function	
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.	
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.	
Lifting motor (front)	Move the seat lifter (front) upward/downward.	
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	
Memory indicator	Illuminates or blinks according to the registration/operation status.	

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

INFOID:000000005141495



INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:000000005141496

OUTLINE

When unlocking doors by using Intelligent Key or driver side door request switch, the system performs memory operation.

OPERATION PROCEDURE

- 1. Unlock doors by using Intelligent Key or driver side door request switch.
- 2. The system performs memory operation, and then performs exit assist operation.

NOTE:

If the seat position is in memorized position before unlocking doors, memory operation does not perform. **NOTE:**

ADP-34

< SYSTEM DESCRIPTION >

Further information for Intelligent Key interlock function. Refer to <u>ADP-10. "MEMORY STORING : Descrip-</u>tion".

OPERATION CONDITION

Satisfy all of the following items. The Intelligent Key interlock function is performed if these items are satisfied.

Item	Request status
Key switch	OFF (Key is removed.)
gnition position	LOCK
Seat back	Folded up
A/T selector lever (A/T models)	P position
Parking break (M/T models)	Applied
Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch	OFF (Not operated)
 Set switch Memory switch 	

DETAIL FLOW

-	Order	Input	Output	Control unit condition	G
-	1	 Door unlock signal (CAN) Key ID signal (CAN) 	_	Driver seat control unit receives the door unlock signal and the key ID signal from BCM when unlocking the door with Intelligent Key or driver side door request switch.	Н
-	2	—	—	Driver seat control unit performs the memory function.	

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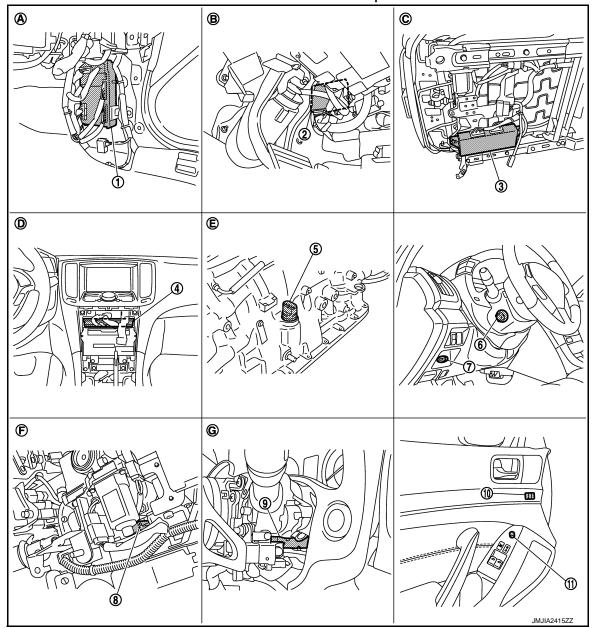
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< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location INFOLD:000000005142545

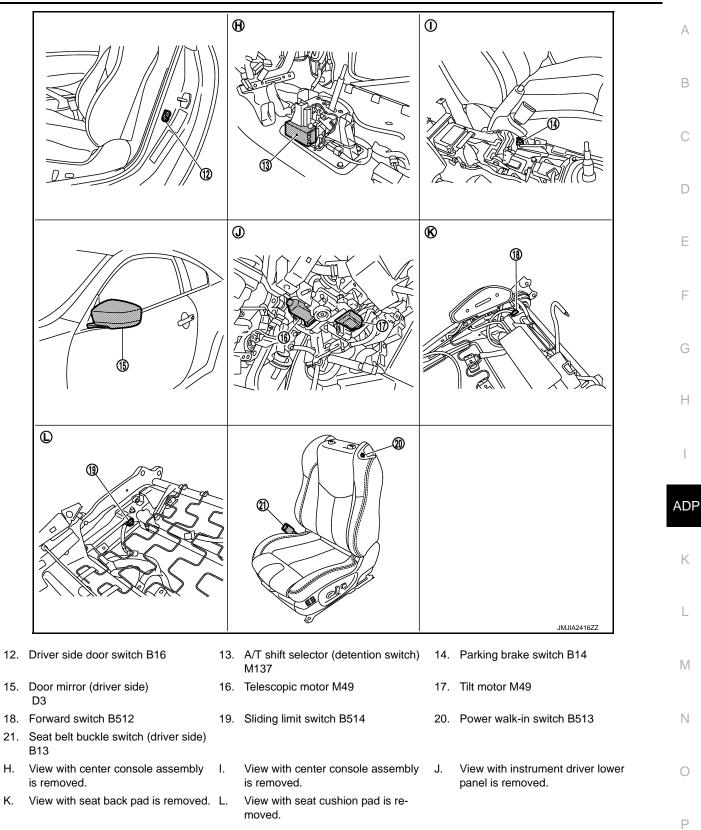


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

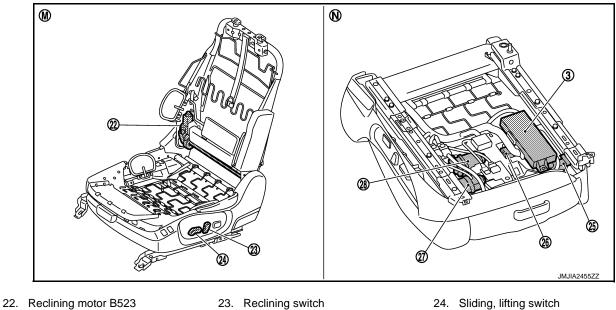
- 2. Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F157
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B503, B504
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >



< SYSTEM DESCRIPTION >



- eclining motor 6525
- 23. Reclining switch (Power seat switch) B510
- 26. Lifting motor (front) B527
- 24. Sliding, lifting switch (Power seat switch) B510
- 27. Sliding motor B525

28. Lifting motor (rear) B529

25. Sliding sensor B526

M. View with seat cushion pad and seat- N. Backside of seat cushion back pad are removed.

INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

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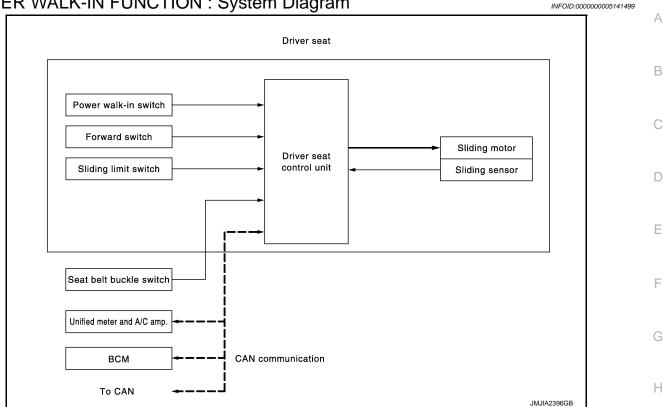
CONTROL UNITS

Item	Function
Driver seat control unit	It performs memory function after receiving the door unlock signal from BCM.
Automatic drive positioner control unit	Operates the steering column and door mirror with the instructions from the driver seat control unit.
ВСМ	 Recognizes the following status and transmits it to the driver seat control unit via CAN communication. Door lock: UNLOCK (with Intelligent Key or driver side door request swtich)

POWER WALK-IN FUNCTION

< SYSTEM DESCRIPTION >

POWER WALK-IN FUNCTION : System Diagram



POWER WALK-IN FUNCTION : System Description

INFOID:000000005141500

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OUTLINE

Slide the driver seat automatically with the power walk-in switch operation so as to easily facilitate the entry to ADP the rear seat.

Forward Operation

Slide (forward) the driver seat to the front end position (sliding limit switch: ON) by operating the power walk-in Κ switch when the seatback is folded down.

The forward operation is stopped by folding the seatback (forward switch: OFF) during the forward operation.

Backward Operation

The seat back is folded up after performing the forward operation of power walk-in function. Slide (backward) it to the position before performing the forward operation by operating the power walk-in switch. If the manual operation, memory operation, and Intelligent Key interlock operation are performed after per-Μ forming the forward operation, do not perform the backward operation.

OPERATION PROCEDURE

Forward Operation	Ν
1. Open driver door.	

- 2. Pull the walk-in lever on the upper part of seatback, and then the seatback is folded down.
- Press the power walk-in switch.
- Slide the seat to the front end position.

Backward Operation

- 1. Open driver door.
- 2. Fold up the seatback after performing the forward operation.
- 3. Press the power walk-in switch.
- 4. Slide the seat to the previous position before the forward operation was performed.

OPERATION CONDITION

Perform the power walk-in function when the following conditions are satisfied.

Revision: 2010 March

ADP-39

< SYSTEM DESCRIPTION >

Forward Operation

Item	Request status
Driver side door	Open
Driver side seat belt	Not fastened
Power seat switch (sliding)	Not operated
Vehicle speed	0 km/h
Seat position (sliding)	Other than front end
Seat back	Folded down

Backward Operation

Item	Request status
Initialize	Done
Driver side seat belt	Not fastened
Switch inputs Power seat switch (sliding) Set switch Memory switch 	Not operated
Vehicle speed	0 km/h
Seat position (sliding)	The seat sliding position will not move after per- forming the forward operation.
Seat back	Folded up

DETAIL FLOW

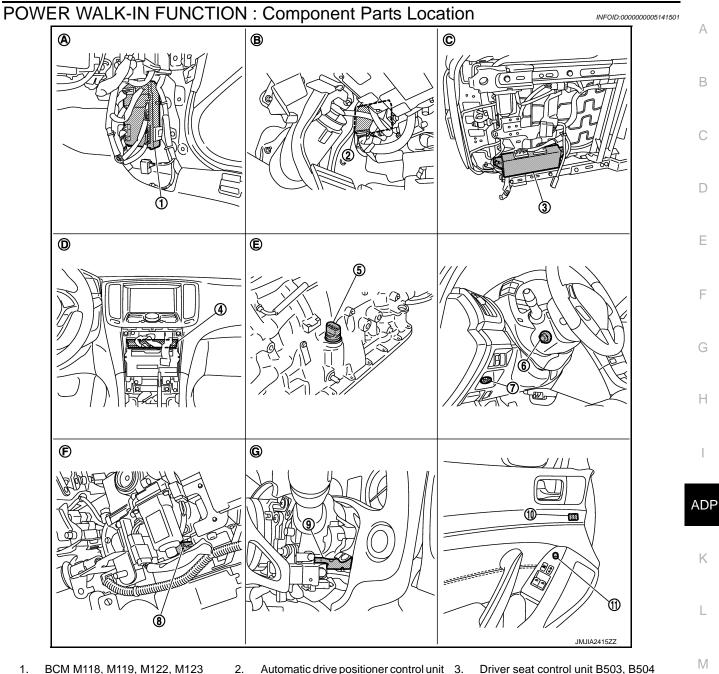
Forward Operation

Order	Inputs	Outputs	Control unit condition	
1	Forward switch	_	Driver seat control unit detects that the seatback is folded down by the signal from the forward switch.	
2	Power walk-in switch	_	The operation signal is inputted to the driver seat control unit when the power walk-in switch is operated.	
3	_	Sliding motor (forward)	Driver seat control unit operates the seat sliding motor forward when it detects that the power walk- in switch is operated.	
4	Sliding limit switch	_	Driver seat control unit stops the seat sliding motor when it detects that the seat sliding reaches the front end position by the sliding limit switch.	

Backward Operation

Order	Inputs	Outputs	Control unit condition
1	Forward switch	_	Driver seat control unit detects that the seatback is folded up by the signal from the forward switch.
2	Power walk-in switch	_	The operation signal is inputted to the driver seat control unit when the power walk-in switch is oper- ated.
3	_	Sliding motor (backward)	Driver seat control unit operates the sliding motor backward when it detects that the power walk-in switch is operated.
4	Sliding sensor	_	Driver seat control unit stops the seat sliding motor when the seat sliding position reaches the position before performing the forward operation by the signal from sliding sensor.

< SYSTEM DESCRIPTION >



- BCM M118, M119, M122, M123 1.
- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- 10. Seat memory switch D5
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

Automatic drive positioner control unit 3. Driver seat control unit B503, B504 M51, M52 5. A/T assembly F51 6. Tilt & telescopic switch M31

9.

C.

- Tilt sensor M48 8.
- 11. Door mirror remote control switch D17
- Β. View with instrument driver lower panel removed (Remove 4WAS front control unit with 4WAS models)
- E. A/T assembly (TCM is built in A/T assembly)

Telescopic sensor M48

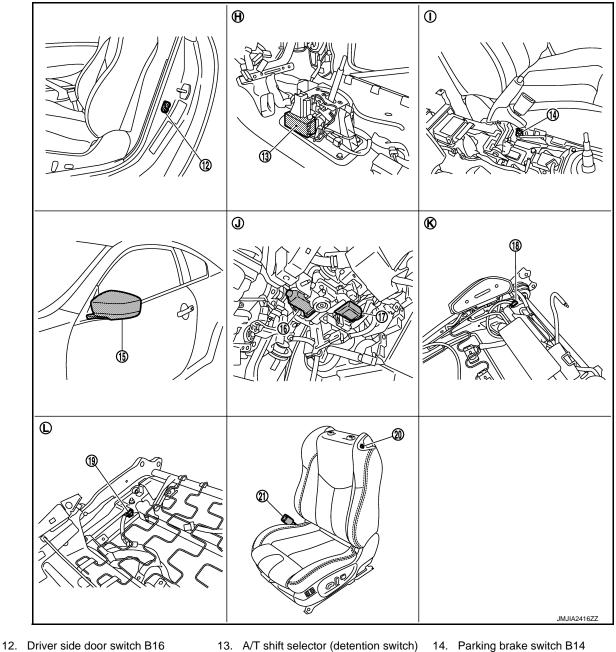
panel removed

F. View with instrument driver lower Ρ

Backside of seat cushion (driver side)

Ν

< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- 18. Forward switch B512
- 21. Seat belt buckle switch (driver side) B13
- H. View with center console assembly ١. is removed.
- K. View with seat back pad is removed. L.

- M137
- 16. Telescopic motor M49
- 19. Sliding limit switch B514
 - View with center console assembly is removed.
 - View with seat cushion pad is removed.

- 17. Tilt motor M49
- 20. Power walk-in switch B513
- J. View with instrument driver lower panel is removed.

< SYSTEM DESCRIPTION >

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)) A	23	a a construction of the second s	X	20 20	E
						JMJIA2455ZZ	F
22.	Reclining motor B523	23.	Reclining switch (Power seat sw B510		24.	Sliding, lifting switch (Power seat switch) B510	0
25.	Sliding sensor B526	26.	Lifting motor (fro	ont) B527	27.	Sliding motor B525	G
28.	Lifting motor (rear) B529						
М.	View with seat cushion pad and seat- back pad are removed.	N.	Backside of sea	t cushion			Η
POW	/ER WALK-IN FUNCTIC)N :	Compone	nt Descriptio	n	INFOID:00000005141	502

CONTROL UNITS

Item	Function
Driver seat control unit	 Main units of automatic drive positioner system It is connected to the CAN. It communicates with the automatic drive positioner control unit via UART communication.
BCM	Transmit the following status to the driver seat control unit via CAN communication. • Driver door: OPEN/CLOSE • Starter: CRANKING/OTHER
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communi- cation.

INPUT PARTS

Switches

Item	Function
Front door switch (driver side)	Detect front door (driver side) open/close status.
Power walk-in switch	Perform the power walk-in operation by operating the power walk-in switch.
Sliding limit switch	Detect the front end position of seat sliding during the power walk-in function front- ward operation.
Seat belt buckle switch	Detect the seat belt fastening/releasing condition.
Forward switch	Detect the folded up/folded down condition of seatback that is the operation condi- tion of power walk-in function.

Sensors

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< SYSTEM DESCRIPTION >

Item	Function
Sliding sensor	Detect the forward/backward position of seat.

OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

The automatic drive positioner system can be checked and diagnosed for component operation using CON-SULT-III.

DIAGNOSTIC MODE

		(
Diagnostic mode	Description	
SELF-DIAG RESULTS	Performs self-diagnosis for the auto drive positioner system and displays the results.	
DATA MONITOR	Displays input signals transmitted from various switches and sensors to driver seat con- trol unit in real time.	[
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.	
ACTIVE TEST	Drives each output device.	
ECU PART NUMBER	Displays part numbers of driver seat control unit.	

CONSULT-III Function

SELF DIAGNOSTIC RESULTS Refer to <u>ADP-158</u>, "DTC Index".

DATA MONITOR

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW-FR* ³	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW-RR* ³	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW-FR* ³	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW-RR* ³	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.
_IFT FR SW-UP* ³	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (upward) signal.
LIFT FR SW-DN* ³	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (downward) signal.
-IFT RR SW-UP* ³	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (upward) signal.
LIFT RR SW-DN* ³	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (downward) signal.
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (upward) signal.
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (downward) signal.
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.
MIR CHNG SW-L	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
TILT SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (upward) signal.
TILT SW-DOWN	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (downward) signal.
TELESCO SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (forward) signal.
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (backward) signal.
FORWARD SW* ³	"ON/OFF"	×	×	ON/OFF status judged from the forward switch signal.
WALK-IN SW* ³	"ON/OFF"	×	×	ON/OFF status judged from the power walk-in switch signal.
FWD LIMIT SW*3	"ON/OFF"	×	×	ON/OFF status judged from the sliding limit switch signal.
SEAT BELT SW* ³	"ON/OFF"	×	×	ON/OFF status judged from the seat belt buckle switch signal.
DETENT SW ^{*1}	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than the P position)" judged from the detention switch signal.
PARK BRAKE SW ^{*2}	"ON/OFF"	×	×	The parking brake condition "ON (applied) / OFF (release)" judged from the parking brake switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal.
SLIDE PULSE*3	-	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULS*4	-	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE*4	-	_	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE*4	-	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"∨"	-	×	Voltage input from door mirror sensor (passenger side) upward/ downward is displayed.
MIR/SEN RH R-L	"∨"	-	×	Voltage input from door mirror sensor (passenger side) leftward/ rightward is displayed.
MIR/SEN LH U-D	"∨"	-	×	Voltage input from door mirror sensor (driver side) upward/down- ward is displayed.
MIR/SEN LH R-L	"∨"	-	×	Voltage input from door mirror sensor (driver side) leftward/right- ward is displayed.
TILT SEN	"V"	-	×	Voltage input from tilt sensor upward/downward is displayed.
TELESCO SEN	"√"	_	×	Voltage input from telescopic sensor forward/backward is displayed.

^{*1}: M/T models display all item except this item.

*2: A/T models display all item except this item.

*³: Only this item is displayed for driver seat without automatic drive positioner system.

*⁴: It is displayed but is not operated for models with driver seat without automatic driver positioner system.

ACTIVE TEST

CAUTION:

When driving vehicle, never perform active test.

Test item	Description
SEAT SLIDE	Activates/deactivates the sliding motor.
SEAT RECLINING	Activates/deactivates the reclining motor.

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Test item	Description	,
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).	P
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).	
TILT MOTOR*	Activates/deactivates the tilt motor.	E
TELESCO MOTOR*	Activates/deactivates the telescopic motor.	
MIRROR MOTOR RH*	Activates/deactivates the mirror motor (passenger side).	
MIRROR MOTOR LH*	Activates/deactivates the mirror motor (driver side).	(
MEMORY SW INDCTR*	Turns ON/OFF the memory indicator.	

*: Does not display without automatic driver position system.

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DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

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INFOID:000000005141506

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	 Driver seat control unit cannot communicate to other control units. Driver seat control unit cannot communicate for more than the specified time. 	Harness or connectors (CAN communication line is open or shorted)

DTC CONFIRMATION PROCEDURE

1.STEP 1

- 1. Turn ignition switch ON and wait for 3 seconds or more.
- 2. Check "Self diagnostic result" using CONSULT-III.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-48, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

Refer to LAN-16, "Trouble Diagnosis Flow Chart".

Special Repair Requirement

Refer to ADP-10, "SYSTEM INITIALIZATION : Description".

INFOID:000000005141507

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

А Description INFOID:000000005141509 The seat sliding motor is installed to the seat cushion frame. В • The seat sliding motor is installed with the driver seat control unit. Slides the seat frontward/ rearward by changing the rotation direction of sliding motor. DTC Logic INFOID:000000005141510 DTC DETECTION LOGIC NOTE: D First perform diagnosis for B2126 if B2126 is detected. Trouble diagnosis DTC No. DTC detecting condition Possible cause name The driver seat control unit detects the output of slid-Driver seat control unit SEAT SLIDE B2112 ing motor output terminal for 0.1 second or more ٠ Slide motor harness is power even if the sliding switch is not input. shorted DTC CONFIRMATION PROCEDURE **1**.PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON. 1. Check "Self diagnostic result" using CONSULT-III. 2. Н Is the DTC detected? >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure". YES NO >> INSPECTION END Diagnosis Procedure INFOID:000000005141511 1. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT) ADP 1. Turn ignition switch OFF. Disconnect sliding motor and driver seat control unit connector. 2. Check voltage between sliding motor harness connector and ground. Κ 3. (+) Voltage (V) Sliding motor (-) (Approx.) Connector Terminals 35 Ground 0 Μ B525 42 Is the inspection result normal? YES >> GO TO 2. Ν NO >> Repair or replace harness. 2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL Connect driver seat control unit connector. 1. 2. Check voltage between driver seat control unit harness connector and ground.

(•	(+)			
Driver seat control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals			
B525	35	Ground	0	
	42	Ground	0	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation"

3.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Description The seat reclining motor is installed to the seatback frame. The seat reclining motor is activated with the driver seat control unit. Tilts the seatback frontward/rearward by changing the rotation direction of reclining motor. DTC Logic DTC DETECTION LOGIC NOTE: First perform diagnosis for B2126 if B2126 is detected. Trouble diagnosis DTC No. DTC detecting condition Possible cause name The driver seat control unit detects the output of re-· Driver seat control unit SEAT RECLINING B2113 clining motor output terminal for 0.1 second or more Reclining motor harness is poweven if the reclining switch is not input. er shorted DTC CONFIRMATION PROCEDURE 1.PEFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

Check "Self diagnostic result" using CONSULT-III. 2.

Is the DTC detected?

- >> Perform diagnosis procedure. Refer to ADP-51, "Diagnosis Procedure". YES
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

- 1. Turn ignition switch OFF.
- 2. Disconnect reclining motor and driver seat control unit connector.
- 3. Check voltage between reclining motor harness connector and ground.

	(+) Reclining motor		Voltage (V) (Approx.)	L
Connector	Terminals	-	(//pp/0/.)	
B523	36	Ground	0	
0020	44		U	M

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

1. Connect driver seat control unit connector.

2. Check voltage between driver seat control unit harness connector and ground.

(+) Driver seat control unit		()	Voltage (V) (Approx.)	Ρ
Connector	Terminals		(//pp/ox.)	
B523	36	- Ground 0	0	
D020	44		0	

Is the inspection result normal?

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YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2118 TILT SENSOR

Description

The tilt sensor is installed to the steering column assembly.

- The resistance of tilt sensor is changed according to the up/down position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of tilt sensor resistance. Automatic drive positioner control unit calculates the tilt position from the voltage.

DTC Logic

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DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	F
B2118	TILT SENSOR	The input voltage of tilt sensor is less then 0.1V or more than 4.9V.	 Harness and connectors (Tilt sensor circuit is opened/ shorted, tilt sensor power supply circuit is opened/shorted.) Tilt sensor 	F
	IRMATION PROCE		·	

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" using CONSULT-III.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to ADP-53, "Diagnosis Procedure".
- >> INSPECTION END NO

Diagnosis Procedure

1.CHECK TILT SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "TILT SEN" in the "Data monitor" mode using CONSULT-III.
- 3. Check tilt sensor signal under the following condition.

Monitor item	Condition	Value	
TILT SEN	Tilt position	Change between 1.1 V (close to top) 3.9 V (close to bottom)	— L
the value normal?			

YES >> GO TO 6.

>> GO TO 2. NO

2.CHECK TILT SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector. 2.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive p	ositioner control unit	Tilt & telescopic sensor Connector Terminal		Continuity	
Connector	Terminal				
M51	7	M48	3	Existed	

4. Check continuity between automatic drive positioner control unit harness connector and ground.

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	7		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

1. Connect automatic drive positioner control unit connector.

2. Turn ignition switch ON.

3. Check voltage between tilt & telescopic sensor harness connector and ground.

(+)			Voltage (V)	
Tilt & teles	copic sensor	()	Voltage (V) (Approx.)	
Connector	Terminal			
M48	1	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	ositioner control unit	Tilt & teleso	copic sensor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228</u>, "Removal and Installation".
- NO >> Repair or replace harness.

5.CHECK TILT SENSOR GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & teleso	copic sensor	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M52	41	M48	4	Existed	

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

< DTC/CIRCUIT	DIAGNOSIS >
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B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description

INFOID:000000005141518

- The telescopic sensor is installed to the steering column assembly.
- The resistance of telescopic sensor is changed according to the forward/backward position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of telescopic sensor resistance. Automatic drive positioner control unit calculates the telescopic position from the voltage.

DTC Logic

INFOID:000000005141519

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2119	TELESCOPIC SEN- SOR	The input voltage of telescopic sensor is less than 0.1V or more than 4.9V.	 Harness and connectors (Telescopic sensor circuit is opened/shorted, telescopic sen- sor power supply circuit is opened/shorted.) Telescopic sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" using CONSULT-III.

Is the DTC is detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-56, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000005141520

1.CHECK TELESCOPIC SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in the "Data monitor" mode using CONSULT-III.
- 3. Check the tilt sensor signal under the following condition.

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.5 V (close to top) 4.5 V (close to bottom)

Is the valve normal?

YES >> GO TO 6.

2. CHECK TELESCOPIC SENSOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

-	Automatic drive po	sitioner control unit	Tilt & teleso	copic sensor	Continuity
	Connector	Terminal	Connector	Terminal	Continuity
	M51	23	M48	2	Existed

4. Check continuity between automatic drive positioner control unit harness connector and ground.



B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit Ground Continuity M51 23 Ground Not existed a the inspection result normal? YES >> GO TO 3. Not existed NO >> Repair or replace harness. . . CHECK TELESCOPIC SENSOR POWER SUPPLY . . . Connect automatic drive positioner control unit connector. . . . Turn ignition switch ON. (+)
Connector Terminal Ground M51 23 Not existed Athe inspection result normal? YES >> GO TO 3. YES >> GO TO 3. Not existed O >> Repair or replace harness. CHECK TELESCOPIC SENSOR POWER SUPPLY Connect automatic drive positioner control unit connector. Turn ignition switch ON. Connect automatic drive positioner control unit connector. Voltage between tilt & telescopic sensor harness connector and ground. (+) Titt & telescopic sensor (-) Voltage (V) (Approx.) Connector Terminal Ground 5 M48 1 Ground 5 athe inspection result normal? YES >> GO TO 5.
a the inspection result normal? YES >> GO TO 3. NO >> Repair or replace harness. CHECK TELESCOPIC SENSOR POWER SUPPLY Connect automatic drive positioner control unit connector. Turn ignition switch ON. Check voltage between tilt & telescopic sensor harness connector and ground. (+) Tilt & telescopic sensor (-) Voltage (V) (Approx.) Connector Terminal M48 1 Ground 5 a the inspection result normal? YES >> GO TO 5.
YES >> GO TO 3. NO >> Repair or replace harness. CHECK TELESCOPIC SENSOR POWER SUPPLY . Connect automatic drive positioner control unit connector. . Turn ignition switch ON. . Check voltage between tilt & telescopic sensor harness connector and ground. (+)
(+) Voltage (V) Tilt & telescopic sensor (-) Connector Terminal M48 1 Ground 5 the inspection result normal? (ES (FS
Tilt & telescopic sensor (-) Voltage (V) (Approx.) Connector Terminal (-) (Approx.) M48 1 Ground 5 the inspection result normal? YES >> GO TO 5. (-) (-)
Connector Terminal (-) (Approx.) M48 1 Ground 5 the inspection result normal? YES >> GO TO 5.
M48 1 Ground 5 the inspection result normal? YES >> GO TO 5.
the inspection result normal? YES >> GO TO 5.
YES >> GO TO 5.
CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and tilt & te
sensor harness connector.
Automatic drive positioner control unit Tilt & telescopic sensor Continuity
ConnectorTerminalConnectorTerminalM5233M481Existed
M5233M481ExistedCheck continuity between automatic drive positioner control unit harness connector and ground.
Check continuity between automatic drive positioner control unit namess connector and ground.
Automatic drive positioner control unit Continuity
Connector Terminal Ground
M52 33 Not existed
M52 33 Not existed a the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installa NO >> Repair or replace harness. NO >> Repair or replace harness. . CHECK TELESCOPIC SENSOR GROUND CIRCUIT . Turn ignition switch OFF. . Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and tilt & te sensor harness connector.
a the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installa NO NO >> Repair or replace harness. ICHECK TELESCOPIC SENSOR GROUND CIRCUIT Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and tilt & te sensor harness connector. Automatic drive positioner control unit
 the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228</u>, "<u>Removal and Installa</u> NO >> Repair or replace harness. CHECK TELESCOPIC SENSOR GROUND CIRCUIT Turn ignition switch OFF. Disconnect automatic drive positioner control unit connector. Check continuity between automatic drive positioner control unit harness connector and tilt & te sensor harness connector.

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

B2126 DETENT SW

Description

- Detention switch is installed on A/T shift selector. It is turned OFF when the A/T selector lever is in P position.
- The driver seat control unit judges that the A/T selector lever is in P position if continuity does not exist in this circuit.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting	condition	Possible cause
B2126	DETENT SW	Selector lever is in P position of 7 \pm 4 km/h is detected.	and the vehicle speed	 Harness and connectors (Detention switch circuit is opened/shorted.) Detention switch Unified meter and A/C amp. (CAN communication)
	IRMATION PROC			
1. PERFORM	M DTC CONFIRMA	TION PROCEDURE		
	e vehicle at 7 ±4 km/ Self diagnostic result	h or more. " using CONSULT-III.		
Is the DTC de	-			
	Perform diagnosis p NSPECTION END	rocedure. Refer to <u>ADP-59</u>), "Diagnosis Proce	<u>edure"</u> .
Diagnosis	Procedure			INFOID:000000005141523
1. снеск d	TC WITH "BCM"			
Check "Self o	diagnostic result" for	BCM using CONSULT-III.		
		B2603, B2604 or B2605 c		
	Check the DTC. Ref GO TO 2.	er to ADP-206, "DTC Inde	<u>9X"</u> .	
-	TC WITH "METER/	M&A"		
		METER/M&A using CON	SULT-III.	
Is the DTC de		5		
	Check the DTC. Ref GO TO 3.	er to <u>MWI-82, "DTC Index</u>	<u>-</u> -	
	ETENTION SWITC			
2. Select "D		"Data Monitor" mode usin al under the following cond		
1	Monitor item	Cor	dition	Status
Г	DETENT SW	selector lever	P position	OFF
			Other than above	ON

Is the status normal?

YES >> GO TO 5. NO >> GO TO 4.

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4.CHECK DETENTION SWITCH CIRCUIT

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B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and A/T shift selector connector.
- 3. Check continuity between driver seat control unit harness connector and A/T shift selector harness connector.

Driver seat	t control unit	A/T shift	selector	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B503	21	M137	11	Existed

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	21		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

B2127 PARKING BRAKE SWITCH

Description

• Parking brake switch is installed on parking brake lever. It is turned ON when the parking brake is applied.

• The driver seat control unit judges that the parking brake is engaged if continuity exists in this circuit.

DTC Logic

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DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	
B2127	PARKING BRAKE	Parking brake is engaged and the vehicle speed of 7 km/h (4MPH) or more is detected.	 Harness and connectors (Parking brake switch circuit is opened/shorted.) Parking brake switch Combination meter (CAN communication) Driver seat control unit 	

DTC CONFIRMATION PROCEDURE

1.STEP 1

- 1. Drive the vehicle at 7 km/h (4 MPH) or more.
- 2. Check "Self Diagnostic Result" using CONSULT-III.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-61, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

1. CHECK PARKING BRAKE SWITCH SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "PARK BRAKE SW" in the "Data Monitor" mode using CONSULT-III.
- 3. Check parking brake switch signal under the following condition.

Monitor item		Condition	Status	
	Darking broke	Applied	ON	_
PARK BRAKE SW	Parking brake	Release	OFF	
s the status normal?				1
YES >> GO TO 5.				
NO >> GO TO 2.				

2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect parking brake switch harness connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between parking brake switch harness connector and ground.

(-	(+) Parking brake switch			Р
Parking br			Voltage (V) (Approx.)	
Connector	Terminal		(+++)	
B14	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

B2127 PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

$\overline{\mathbf{3.}}$ CHECK PARKING BRAKE SWITCH HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and parking brake switch connector.
- 3. Check continuity between driver seat control unit harness connector and parking brake switch harness connector.

Driver seat	Driver seat control unit		rake switch	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B503	8	B14	1	Existed	

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	8		Not existed

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".
- NO >> Repair or replace harness.

4.CHECK PARKING BRAKE SWITCH

Refer to ADP-62, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Adjust or replace parking brake switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000005141527

1.CHECK PARKING BRAKE SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect parking brake switch connector.
- 3. Check continuity between parking brake switch terminal and ground part of parking brake switch.

Те	erminal	Condition		Continuity
Parking	brake switch	Condition	I	Continuity
1	Ground part of	Parking brake	Applied	Existed
I	parking brake switch	Faiking blake	Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch.

B2128 UART COMMUNICATION LINE

Description

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 2 communication lines, TX and RX line. Driver seat control unit receives the operation signals of tilt & telescopic switch, door mirror remote control switch, set switch and memory switch and the position signals of tilt & telescopic sensor and door mirror sensor from the automatic drive positioner control unit and transmits the operation request signal.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2128	UART COMM	The communication between driver seat control unit and auto drive positioner control unit is interrupted for a period of time.	 UART communication line (UART communication line is open or shorted) Driver seat control unit Automatic drive positioner control unit

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate tilt & telescopic switch for more than 2 seconds.
- 3. Check "Self diagnostic result" using CONSULT-III.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-63. "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1. CHECK UART COMMUNICATION LINE CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and automatic drive positioner control unit connector.
- 3. Check continuity between driver seat control unit harness connector and automatic drive positioner control unit harness connector.

	Continuity	ositioner control unit	Automatic drive po	control unit	Driver seat
Μ	Continuity	Terminal	Connector	Terminal	Connector
	Eviated	10	M51	1	B503
N	Existed	26		17	D303

4. Check continuity between driver seat control unit harness connector and ground.

Driver se	Driver seat control unit		Continuity	0
Connector	Terminal	Ground	Continuity	0
B503	1	Ground	Not existed	-
B303	17		Not existed	Р

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".

NO >> Repair or replace harness.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT BCM

BCM : Diagnosis Procedure

INFOID:000000005141531

1.CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

Signal name	Fuse and fusible link No.
Battony power supply	I (40A)
Battery power supply	10 (10A)

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connectors.

3. Check voltage between BCM harness connector and ground.

(+) BCM		(-)	Voltage (Approx.)
Connector	Terminal		(, , , , , , , , , , , , , , , , , , ,
M118	1	Ground	Dottorn voltoro
M119	11	Ground	Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

 $\mathbf{3.}$ CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector	Terminal	Ground	
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:000000005141532

NOTE:

Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed using CONSULT-III.

1.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Check voltage between driver seat control unit harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit	()	Voltage (V)
Connector	Terminal		(Approx.)
D=0.4	33		
B504	40	Ground	Battery voltage
Circuit break CHECK GROUND CIRC	llowing. lace harness between drive er.		
-			
	at control unit		Continuity
Connector	Terminal	Ground	
B503	32		Existed
B504 the inspection result norr	48		
O >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service	ice harness. TROL UNIT:Special L SERVICE when removing battery nega	ative terminal.	
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service >> Refer to <u>ADP-6</u> JTOMATIC DRIVE JTOMATIC DRIVE DTE:	ice harness. FROL UNIT : Special I L SERVICE when removing battery nega 54. "DRIVER SEAT CONTR POSITIONER CONTR POSITIONER CONT	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos	cedure". sis Procedure
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service >> Refer to <u>ADP-6</u> JTOMATIC DRIVE JTOMATIC DRIVE DTE:	TROL UNIT : Special IROL UNIT : Special L SERVICE when removing battery nega A, <u>"DRIVER SEAT CONTR</u> POSITIONER CONT POSITIONER CONT POSITIONER CONT	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos	cedure". sis Procedure
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service >> Refer to ADP-(JTOMATIC DRIVE JTOMATIC DRIVE DTE: o not disconnect the batt ned using CONSULT-III. CHECK POWER SUPP Turn ignition switch OF	ICE harness. FROL UNIT : Special I AL SERVICE when removing battery nega 54. "DRIVER SEAT CONTR POSITIONER CONT POSITIONER CONTI ery negative terminal and t LY CIRCUIT	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos he driver seat control uni	cedure". sis Procedure ^{INFOID:00000000} t connector until DTC is
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service >> Refer to ADP-(JTOMATIC DRIVE JTOMATIC DRIVE DTE: o not disconnect the batt ned using CONSULT-III. CHECK POWER SUPP Turn ignition switch OF	ICE harness. FROL UNIT : Special I AL SERVICE when removing battery nega 54. "DRIVER SEAT CONTR POSITIONER CONT POSITIONER CONTI ery negative terminal and t LY CIRCUIT F.	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos he driver seat control uni	cedure". sis Procedure INFOID:00000000 t connector until DTC is ector and ground.
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service >> Refer to ADP-(UTOMATIC DRIVE UTOMATIC DRIVE DTOMATIC DRIVE	ICE harness. FROL UNIT : Special I AL SERVICE when removing battery nega 54. "DRIVER SEAT CONTR POSITIONER CONT POSITIONER CONTI ery negative terminal and t LY CIRCUIT F. n automatic drive positioner	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos he driver seat control uni	cedure". sis Procedure INFOID:00000000 t connector until DTC is ector and ground. Voltage (V)
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA rform additional service >> Refer to ADP-(UTOMATIC DRIVE UTOMATIC DRIVE DTOMATIC DRIVE	ICE harness. FROL UNIT : Special I AL SERVICE when removing battery nega 54. "DRIVER SEAT CONTR FOSITIONER CONT POSITIONER CONT POSITIONER CONT EN negative terminal and t LY CIRCUIT F. n automatic drive positioner (+)	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos he driver seat control uni control unit harness conn	cedure". sis Procedure INFOID:00000000 t connector until DTC is ector and ground.
IO >> Repair or repla RIVER SEAT CON PERFORM ADDITIONA Inform additional service >> Refer to ADP-6 UTOMATIC DRIVE UTOMATIC DRIVE DTE: In not disconnect the batt ned using CONSULT-III. CHECK POWER SUPP Turn ignition switch OF Check voltage between Automatic drive	Ice harness. FROL UNIT : Special I AL SERVICE when removing battery negative AL "DRIVER SEAT CONTR AL "DRIVER SEAT CONTR AL "DRIVER SEAT CONTR AL "DRIVER SEAT CONTR AL "DRIVER SEAT CONTR POSITIONER CONTR POSITIONER CONTR POSITIONER CONTR I CONTRACTOR I CO	ative terminal. <u>OL UNIT : Diagnosis Pro</u> TROL UNIT ROL UNIT : Diagnos he driver seat control uni control unit harness conn	cedure". sis Procedure INFOID:00000000 t connector until DTC is ector and ground.

2.CHECK GROUND CIRCUIT

Check continuity between the automatic drive positioner control unit harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	40	Cround	Existed
IVIJZ	48		LAISIEU

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

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1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-9</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

SLIDING SWITCH

Description

Sliding switch is equipped to the power seat switch on the seat cushion side surface. The operation signal is input to the driver seat control unit when the sliding switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SLIDE SW-FR", "SLIDE SW-RR" in the "Data monitor" mode using CONSULT-III.
- 3. Check sliding switch signal under the following conditions.

Monitor item	Conditio	n	Status	
		Operate	ON	_
SLIDE SW-FR	Sliding switch (forward)	Release	OFF	_
	Cliding quitch (he glowerd)	Operate	ON	_
SLIDE SW-RR	Sliding switch (backward)	Release	OFF	_

Is the indication normal?

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to <u>ADP-67. "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK SLIDING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check voltage between power seat switch harness connector and ground.

(+)		Voltage (V)		
eat switch		(Approx.)	K	
Terminal				
11	Cround	Potton voltogo		
26	Giouna	Dallery vollage	1	
	eat switch Terminal 11	Terminal (-)	(-) Voltage (V) (Approx.) Terminal 11 Ground Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK SLIDING SWITCH CIRCUIT

- 1. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and power seat switch harness connector.

o ntinuity		Power seat switch		Driver seat control unit	
linuity	I	Terminal	Connector	Terminal	Connector
kisted P		11	B510	11	B503
		26	- 6010	26	B303

3. Check continuity between driver seat control unit harness connector and ground.

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SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	11	Ground	Not existed
	26		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK SLIDING SWITCH

Refer to ADP-68. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK SLIDING SWITCH

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

3. Check continuity between power seat switch terminals.

Power	seat switch	Condi	Condition	
Те	Terminal		Condition	
	11	Sliding switch (backward)	Operate	Existed
32	11	Silding Switch (Dackward)	Release	Not existed
52	26	Operate	Existed	
	20	Sliding switch (forward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

RECLINING SWITCH

Description

Reclining switch is equipped to the power seat switch on the seat cushion side surface. The operation signal is В input to the driver seat control unit when the reclining switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "RECLN SW-FR", "RECLN SW-RR" in the "Data monitor" mode using CONSULT-III. 2.
- Check reclining switch signal under the following conditions. 3.

Monitor item	Condition		Status	
		Operate	ON	
RECLINE SW-FR	Reclining switch (forward)	Release	OFF	
		Operate	ON	
RECLINE SW-RR	Reclining switch (backward)	Release	OFF	

Is the indication normal?

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to ADP-69, "Diagnosis Procedure".

Diagnosis Procedure

- 1. CHECK RECLINING SWITCH SIGNAL
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check voltage between power seat switch harness connector and ground.

(+)	()	Voltage (V) (Approx.)			
Power se	eat switch			K		
Connector	Terminal					
B510	12	Ground	Battery voltage			
8310	27	Giounu	Ballery vollage	L		

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> GO TO 2.

2.check reclining switch circuit

- 1. Disconnect driver seat control unit connector.
- Ν Check continuity between driver seat control unit harness connector and power seat switch harness con-2. nector.

0	Continuity	Power seat switch		Driver seat control unit	
	Continuity	Terminal	Connector	Terminal	Connector
D	Existed	12	B510	12	B503
F	EXISTED	27	6310	27	0003

3. Check continuity between driver seat control unit harness connector and ground.

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Terminal	- Ground Not existed	Continuity	
B503	12		Not oxisted	
6000	27		NOT EXISTED	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK RECLINING SWITCH

Refer to ADP-70, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK RECLINING SWITCH

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

3. Check continuity between power seat switch terminals.

	Power seat switch		Condition		Continuity
	Terminal				
		12	Reclining switch (backward)	Operate	Existed
	32	12		Release	Not existed
		27	Reclining switch (forward)	Operate	Existed
		21		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

Lifting switch (front) is equipped to the power seat switch on the seat cushion side surface. The operation sig-В nal is input to the driver seat control unit when the lifting switch (front) is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "LIFT FR SW-UP", "LIFT FR SW-DN" in the "Data monitor" mode using CONSULT-III. 2.
- Check lifting switch (front) signal under the following conditions. 3.

Monitor item	Condition	Condition		
		Operate	ON	
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF	
LIFT FR SW-DN	Lifting quitch front (down)	Operate	ON	
	Lifting switch front (down)	Release	OFF	

Is the indication normal?

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to ADP-71, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK LIFTING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check voltage between power seat switch harness connector and ground.

	(+) eat switch	()	Voltage (V) (Approx.)	
 Connector	Terminal	-	(Approx.)	K
 B510	13	Ground	Pottory voltage	_
010	28	Ground	Battery voltage	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check lifting switch (front) circuit

- 1. Disconnect driver seat control unit connector.
- Ν Check continuity between driver seat control unit harness connector and power seat switch harness con-2. nector.

0	Continuity	Power seat switch		control unit	Driver seat
	Continuity	Terminal	Connector	Terminal	Connector
D	Existed	13	B510	13	B503
Г	Existed	28	8510	28	B303

Check continuity between driver seat control unit harness connector and ground. З

5.	Check continuity	Derv

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B503	13	Ground	Not existed	
6000	28	NOT EXISTE	NUT EXISTED	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-72, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK LIFTING SWITCH (FRONT)

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check continuity between power seat switch terminals.

Power seat switch		Condition		Continuity
Terminal				
	13	Lifting switch front (down)	Operate	Existed
32	15		Release	Not existed
	28 L	Lifting switch front (up)	Operate	Existed
	20		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description

Lifting switch (rear) is equipped to the power seat switch on the seat cushion side surface. The operation signal is input to the driver seat control unit when the lifting switch (rear) is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "LIFT RR SW-UP", "LIFT RR SW-DN" in the "Data monitor" mode using CONSULT-III.
- 3. Check lifting switch (rear) signal under the following conditions.

Monitor item	Condition	n	Status	
		Operate	ON	
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF	_
LIFT RR SW-DN		Operate	ON	_
LIFT KR SW-DN	Lifting switch rear (down)	Release	OFF	

Is the indication normal?

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to <u>ADP-73, "Diagnosis Procedure"</u>.

Diagnosis Procedure

- 1.CHECK LIFTING SWITCH (REAR) SIGNAL
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check voltage between power seat switch harness connector and ground.

_	(+) Power seat switch		(-)	Voltage (V) (Approx.)	
	Connector	Terminal		(Approx.)	K
	B510	14	Ground	Battery voltage	_
	6510	29	Ground	Dattery Voltage	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (REAR) CIRCUIT

- 1. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and power seat switch harness connector.

0	Continuity	Power sear switch		control unit	Driver seat
у	Continuity	Terminal	Connector	Terminal	Connector
	Existed	14	B510	14	B503
Г	Existed	29		29	6303

3. Check continuity between driver seat control unit harness connector and ground.

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	14	Ground	Not existed
	29		NOT EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-74, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK LIFTING SWITCH (REAR)

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check continuity between power seat switch terminals.

Power s	eat switch	Condit	ion	Continuity	
Ter	minal	Condition		Continuity	
	14	Lifting switch roor (down)	Operate	Existed	
32	14	Lifting switch rear (down)	Release	Not existed	
52	29	Lifting owitch roor (up)	Operate	Existed	
	29	Lifting switch rear (up)	Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-230, "Removal and Installation"</u>.

FORWARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

FORWARD SWITCH

Descri	ntion
Desch	puon

Forward switch is installed on the seat back frame. Forward switch detects condition of seat back.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "FORWARD SW" in the "Data Monitor" mode using CONSULT-III.
- 3. Check the forward switch signal under the following condition.

Test item		Conditio	า	Status
	Deixen side	F	olded up	ON
FORWARD SW	Driver side		Folded down	OFF
the indication normal? YES >> INSPECTIO NO >> Perform diag	N END Inosis procedure. Ref	er to <u>ADP-75, "Dia</u>	gnosis Procedure".	
iagnosis Procedu	re			INFOID:0000000514155
.CHECK FORWARD	WITCH SIGNAL			
	OFF. switch harness conne een forward switch ha		d ground.	
	(+)			
Fo	rward switch		(-)	Voltage (V) (Approx.)
Connector	Terminal			
B512	41		Ground	5
s the inspection result n	<u>ormal?</u>			
YES >> GO TO 3. NO >> GO TO 2. CHECK FORWARD S		tor		
YES >> GO TO 3. NO >> GO TO 2. CHECK FORWARD S Disconnect driver se Check continuity bet tor.	at control unit connec ween driver seat cont	rol unit harness co		switch harness connec
YES >> GO TO 3. NO >> GO TO 2. CHECK FORWARD S Disconnect driver se Check continuity bet tor.	at control unit connec ween driver seat cont ontrol unit	rol unit harness co Forwar	d switch	switch harness connec
YES >> GO TO 3. NO >> GO TO 2. CHECK FORWARD S Disconnect driver se Check continuity bet tor.	at control unit connec ween driver seat cont	rol unit harness co		

3. Check continuity between driver seat control unit harness connector and ground.

Driver seat	Driver seat control unit		Continuity	-
Connector	Terminal	Ground	Continuity	D
B504	41		Not existed	P

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation"

NO >> Repair or replace harness.

 $\mathbf{3.}$ FORWARD SWITCH GROUND CIRCUIT

Check continuity between forward switch harness connector and ground.

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FORWARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Forward switch			Continuity
Connector	Terminal	Ground	Continuity
B512	32	-	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK FORWARD SWITCH

Refer to ADP-76, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace forward switch (Built in seat back frame). Refer to SE-223. "Exploded View".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK FORWARD SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect forward switch connector.
- 3. Check continuity between forward switch terminals.

Forward switch		Cor	dition	Continuity		
Connector	Terr	ninal	Condition		Continuity	
B512	41	22	Driver side seat	Folded up	Not existed	
0012	41	32	back	Folded down	Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace forward switch (Built in seat back frame). Refer to <u>SE-223, "Exploded View"</u>.

Revision: 2010 March

SEAT BELT BUCKLE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH

Description

Seat belt buckle switch is installed in seat belt buckle. Seat belt buckle switch detects condition of seat belt.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT BELT SW" in the "Data Monitor" mode using CONSULT-III.
- 3. Check the seat belt buckle switch signal under the following condition.

Test item	(Condition		
	Driver eide eest helt	Fastened	ON	E
SEAT BELT SW	Driver side seat belt	Released	OFF	
Is the indication normal?				F

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-77, "Diagnosis Procedure"</u>,

Diagnosis Procedure

1.CHECK SEAT BELT BUCKLE SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect seat belt buckle switch harness connector.
- 3. Check voltage between seat belt buckle switch harness connector harness connector and ground.

(+)			
Seat belt buckle switch		()	Voltage (V) (Approx.)	
Connector	Terminal			ADP
B13	1	Ground	5	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

- 1. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and seat belt buckle switch harness connector.

Driver seat control unit		Seat belt buckle switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	Ν
B503	5	B13	1	Existed	

3. Check continuity between driver seat control unit harness connector and ground.

	Driver seat	control unit		Continuity	-
-	Connector	Terminal	Ground	Continuity	
-	B503	5		Not existed	P

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

NO >> Repair or replace harness.

 ${
m 3.}$ CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch harness connector and ground.

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SEAT BELT BUCKLE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat belt bu	uckle switch		Continuity
Connector	Terminal	Ground	Continuity
B13	2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK SEAT BELT BUCKLE SWITCH

Refer to ADP-78. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat belt buckle switch (Built in seat belt buckle). Refer to <u>SE-223, "Exploded View"</u>.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SEAT BELT BUCKLE SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat belt buckle switch connector.
- 3. Check continuity between seat belt buckle switch terminals.

	Seat belt buckle switch			Condition		
Connector	Terr	ninal	Condition		Continuity	
B13	1	2	Driver side seat	Fastened	Not existed	
БТЗ	I	2	belt	Released	Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (Built in seat belt buckle). Refer to SE-223, "Exploded View".

SLIDING LIMIT SWITCH

COTC/CIRCUIT DIAGI					
Description					INF0ID:0000000051415
Sliding limit switch is ins	stalled on seat	t cushion frame	Slidina lir	nit switch detects c	ondition of seat sliding.
component Function	-		. Chang h		INFOID:00000000051415
					IN 012.000000003141
CHECK FUNCTION					
Select "FWD LIMIT Check the sliding lir					
Test item			Cond	tion	Status
FWD LIMIT SW		Seat sliding		Front edge	ON
		oodtonding		Other than above	OFF
	DN END gnosis proced	dure. Refer to <u>A</u>	<u>.DP-79, "D</u>	iagnosis Procedure	<u>e"</u> .
iagnosis Procedu	ure				INFOID:0000000051415
1	MIT SWITCH	SIGNAL			
.CHECK SLIDING LIN					
Turn ignition switch Disconnect sliding li	OFF. imit switch ha	rness connecto		tor and ground.	
Turn ignition switch Disconnect sliding li	OFF. imit switch ha	rness connecto		tor and ground.	
 Turn ignition switch Disconnect sliding li Check voltage betw 	OFF. imit switch ha /een sliding lin	rness connecto		tor and ground. (–)	Voltage (V) (Approx.)
Turn ignition switch Disconnect sliding li Check voltage betw Slid Connector	OFF. imit switch ha reen sliding lin (+)	rness connecto nit switch harne Terminal		()	(Approx.)
. Turn ignition switch 2. Disconnect sliding li 3. Check voltage betw Slid Connector B514	OFF. imit switch ha reen sliding lin (+) ding limit switch	rness connecto nit switch harne		_	
. Turn ignition switch . Disconnect sliding li . Check voltage betw Slid Connector B514 s the inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LIN . Disconnect driver set	OFF. imit switch ha reen sliding lin (+) ding limit switch normal? MIT SWITCH of eat control un	rness connecto nit switch harne Terminal 4 CIRCUIT it connector.		(–) Ground	(Approx.)
. Turn ignition switch Disconnect sliding li Check voltage betw Connector B514 Sthe inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LIN Disconnect driver se Check continuity be	OFF. imit switch have veen sliding line (+) ding limit switch normal? MIT SWITCH eat control under stween driver states	rness connecto nit switch harne Terminal 4 CIRCUIT it connector.	t harness	(–) Ground	(Approx.) 5 ng limit switch harness cor
 Turn ignition switch Disconnect sliding li Check voltage betw Slid Connector B514 Sthe inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LIN Disconnect driver set Check continuity be nector. 	OFF. imit switch have veen sliding line (+) ding limit switch normal? MIT SWITCH eat control under stween driver states	rness connecto nit switch harne Terminal 4 CIRCUIT it connector. seat control uni	t harness Slidin	(-) Ground	(Approx.) 5 ng limit switch harness cor Continuity
 Turn ignition switch Disconnect sliding li Check voltage betw Slid Connector B514 Sthe inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LIN Disconnect driver set Check continuity be nector. Driver seat Connector B503 	OFF. imit switch ha yeen sliding lin (+) ding limit switch hormal? MIT SWITCH of eat control unit etween driver so control unit Terminal 4	rness connecto nit switch harne Terminal 4 CIRCUIT it connector. seat control uni	t harness Slidin onnector B514	(-) Ground connector and slidin g limit switch Terminal 4	(Approx.) 5 ng limit switch harness cor Continuity Existed
 Turn ignition switch Disconnect sliding li Check voltage betw Slid Connector B514 Sthe inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LIN Disconnect driver set Check continuity be nector. Driver seat Connector B503 	OFF. imit switch ha yeen sliding lin (+) ding limit switch hormal? MIT SWITCH of eat control unit etween driver so control unit Terminal 4	rness connecto nit switch harne Terminal 4 CIRCUIT it connector. seat control uni	t harness Slidin onnector B514	(-) Ground connector and slidin g limit switch Terminal 4	(Approx.) 5 ng limit switch harness cor Continuity Existed
 Turn ignition switch Disconnect sliding li Check voltage betw Slid Connector B514 Sthe inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LING Disconnect driver set Check continuity be nector. Driver seat Connector B503 Check continuity be 	OFF. imit switch ha yeen sliding lin (+) ding limit switch hormal? MIT SWITCH of eat control unit etween driver so control unit Terminal 4	rness connecto nit switch harne Terminal 4 CIRCUIT it connector. seat control uni	t harness Slidin onnector B514	(-) Ground connector and slidin g limit switch Terminal 4	(Approx.) 5 ng limit switch harness cor Continuity Existed nd.
2. Disconnect sliding li 3. Check voltage betw Slid Connector B514 sthe inspection result r YES >> GO TO 3. NO >> GO TO 2. CHECK SLIDING LIN Disconnect driver se Check continuity be nector. Driver seat Connector B503 Check continuity be	OFF. imit switch have a sliding limit switch have a sliding linit switch have a sliding linit switch have a slidi	rness connecto nit switch harne Terminal 4 CIRCUIT it connector. seat control uni	t harness Slidin onnector B514	(-) Ground connector and slidin g limit switch Terminal 4	(Approx.) 5 ng limit switch harness cor Continuity Existed

3. CHECK SLIDING LIMIT SWITCH GROUND CIRCUIT

Check continuity between sliding limit switch harness connector and ground.

SLIDING LIMIT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Sliding lin	nit switch		Continuity
Connector	Terminal	Ground	
B514	32		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

CHECK SLIDING LIMIT SWITCH

Refer to ADP-80, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace forward switch (Built in seat back frame). Refer to SE-223. "Exploded View".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SLIDING LIMIT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding limit switch connector.
- 3. Check continuity between sliding limit switch terminals.

Sliding limit switch			Condition		Continuity	
 Connector	Terr	minal		handon	Continuity	
 B514	4 20 Cost sliding		Front edge	Existed		
D014	4	32	Seat sliding	Other than above	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace forward switch (Built in seat back frame). Refer to <u>SE-223, "Exploded View"</u>.

POWER WALK-IN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

POWER WALK-IN SWITCH

Description

Power walk-in switch is installed on seat back. The operation signal is input to driver seat control unit when power walk-in switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "WALK-IN SW" in the "Data Monitor" mode using CONSULT-III.
- 3. Check the power walk-in switch signal under the following condition.

	Test item Condition		Status	Е	
14/4	LK-IN SW		Pressed	ON	
VV <i>P</i>		Power walk-in switch	Released	OFF	
Is the	indication normal?				F
YES NO	>> INSPECTION END >> Perform diagnosis proc	edure. Refer to <u>ADP-81, "</u>	Diagnosis Procedure".		C
Diag	nosis Procedure			INFOID:000000005141566	G

1.CHECK POWER WALK-IN SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power walk-in switch harness connector.
- 3. Check voltage between power walk-in switch harness connector and ground.

	(+	-)			
	Power walk-in switch		(-)	Voltage (V) (Approx.)	ADP
	Connector	Terminal	_	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	B513	30	Ground	5	_
le the	inspection result perm	312			- K

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check power walk-in switch circuit

1. Disconnect driver seat control unit connector and power walk-in switch connector.

2. Check continuity between driver seat control unit harness connector and power walk-in switch harness M connector.

	Driver seat	control unit	Power walk-in switch		Continuity	N
	Connector	Terminal	Connector	Terminal	Continuity	14
	B503	30	B513	30	Existed	
-						~

3. Check continuity between driver seat control unit harness connector and ground.

Driver sea	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	Р
B503	30		Not existed	-

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-227, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK POWER WALK-IN SWITCH GROUND CIRCUIT

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POWER WALK-IN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Check continuity between power walk-in switch harness connector and ground.

Power wa	lk-in switch		Continuity
Connector	Terminal	Ground	Continuity
B513	32		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK POWER WALK-IN SWITCH

Refer to ADP-82, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power walk-in switch (Built in walk-in lever). Refer to SE-223, "Exploded View".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK POWER WALK-IN SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect power walk-in switch connector.
- 3. Check continuity between power walk-in switch terminals.

Power walk-in switch		C	Condition			
Connector	Terr	ninal	Condition		Continuity	
B513	30	22	Power walk-in	Pressed	Existed	
D013	30	32	switch	Released	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power walk-in switch (Built in walk-in lever). Refer to SE-223, "Exploded View".

< DTC/CIRCUIT DIAGNOSIS >

TILT SWITCH

Description

Tilt switch is equipped to the steering column. The operation signal is input to the automatic drive positioner B control unit when the tilt switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TILT SW-UP", "TILT SW-DN" in the "Data monitor" mode using CONSULT-III.
- 3. Check tilt switch signal under the following conditions.

Monitor item	Cond	Condition		_
TILT SW-UP		Operate		_
	Tilt switch (up)	Release	OFF	_
TILT SW-DN		Operate	ON	_
	Tilt switch (down)	Release	OFF	

Is the indication normal?

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to <u>ADP-83, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK TILT SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check voltage between tilt & telescopic switch harness connector and ground.

				AD
	+) copic switch	()	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	K
M31	4	Ground	Pottony voltago	_
	5	Giouna	Battery voltage	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT

- 1. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive po	ositioner control unit	Tilt & telescopic switch		ioner control unit Tilt & telescopic switch		Continuity	0
Connector	Terminal	Connector	Terminal	Continuity			
M51	1	M31	4	Existed	D		
NI I UI I	17		5	Existed	Г		

3. Check continuity between automatic drive positioner control unit harness connector and ground.

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TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	1	Ground	Not existed
	17		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK TILT SWITCH

Refer to ADP-84, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-232</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK TILT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch terminals.

Tilt & teleso	copic switch	Condition		Continuity
Terr	ninal			Continuity
	4	Tilt switch (up)	Operate	Existed
1	4	Tilt switch (up)	Release	Not existed
I	5	Tilt switch (down)	Operate	Existed
	5	The Switch (down)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-232</u>, "Removal and Installation".

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description

Telescopic switch is equipped to the steering column. The operation signal is input to the automatic drive positioner control unit when the telescopic switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SW-FR", "TELESCO SW-RR" in the "Data monitor" mode using CONSULT-III.
- 3. Check telescopic switch signal under the following conditions.

Monitor item	Condition	Condition		
		Operate	ON	
ELESCO SW-FR	Telescopic switch (forward)	Release	OFF	
TELESCO SW-RR		Operate	ON	
	Telescopic switch (backward)	Release	OFF	

Is the indication normal?

- YES >> INSPECTION END
- NO >> Perform diagnosis procedure. Refer to <u>ADP-85, "Diagnosis Procedure"</u>.

Diagnosis Procedure

- 1.CHECK TELESCOPIC SWITCH SIGNAL
- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check voltage between tilt & telescopic switch harness connector and ground.

_	-	+) copic switch	()	Voltage (V) (Approx.)	
	Connector	Terminal		(//pp/0x.)	
	M31	2	Ground	Potton voltago	_
	10131	3	Giouna	Battery voltage	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TELESCOPIC SWITCH CIRCUIT

- 1. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive po	ositioner control unit	Tilt & telescopic switch		Continuity	0
Connector	Terminal	Connector	Terminal	Continuity	
M51	11	M31	2	Existed	D
I CIVI	27		3	Existed	Г

3. Check continuity between automatic drive positioner control unit harness connector and ground.

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TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	11	Ground	Not existed
	27		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK TELESCOPIC SWITCH

Refer to ADP-86, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-232</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK TELESCOPIC SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch terminals.

Tilt & teles	copic switch	- Condition Continuit		Continuity
Terr	minal			Continuity
	2	Toloscopic switch (forward)	Operate	Existed
1	2	Telescopic switch (forward)	Release	Not existed
I	3	Tolocoopia switch (bookword)	Operate	Existed
	5	Telescopic switch (backward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-232, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description

Memory switch is equipped on the seat set switch and seat memory switch installed to the driver side door trim. The operation signal is input to the automatic drive positioner control unit when the set switch or memory switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "MEMORY SW 1", "MEMORY SW 2" "SET SW" in the "Data monitor" mode using CONSULT-III.
- 3. Check seat memory switch signal under the following conditions.

Monitor item	Condit	Condition			
		Press	ON	_	
SET SW	SET SW	Release	OFF		
	Managara avidada d	Press	Press	ON	
IEMORY SW 1	Memory switch 1	Release	OFF	_	
MEMORY SW 2	Marran avitab 0	Press	ON	_ (
	Memory switch 2	Release	OFF		

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-87, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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- 1.CHECK SEAT MEMORY SWITCH SIGNAL
 - 1. Turn ignition switch OFF.
 - 2. Disconnect seat memory switch connector.
 - 3. Turn ignition switch ON.
 - 4. Check voltage between seat memory switch harness connector and ground.

(+)			_
Seat memory switch		(-)	Voltage (V) (Approx.)	L
Connector	Terminal	-	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	1			N
D5	2	Ground	5	10
	3	-		
the inspection result norma	<u> ?</u>			N
'ES >> GO TO 3.				

NO >> GO TO 2.

2. CHECK MEMORY SWITCH CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and seat memory switch harness connector.

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INFOID:000000005141576

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	24		3	
M51	9	D5	1	Existed
	25		2	*

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal		Continuity
	24	Ground	
M51	9		Not existed
	25		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installation"</u>. NO >> Repair or replace harness.

3. CHECK MEMORY SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Check continuity between seat memory switch harness connector and ground.

Seat men	nory switch		Continuity	
Connector	Terminal	Ground		
D5	4		Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK SEAT MEMORY SWITCH

Refer to ADP-88, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to <u>ADP-229</u>, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK SEAT MEMORY SWITCH

1. Turn ignition switch OFF.

2. Disconnect seat memory switch connector.

3. Check continuity between seat memory switch terminals.

Revision: 2010 March

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat memory switch			Condition		
Tei	Terminal				
	3	Set switch	Press	Existed	
	5	Set Switch	Release	Not existed	
4			Press	Existed	
4	1	Memory switch 1	Release	Not existed	
	0	Marran awitch 0	Press	Existed	
	2	Memory switch 2	Release	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

>> Replace seat memory switch.Refer to <u>ADP-229</u>, "Removal and Installation". NO

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< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH MIRROR SWITCH

MIRROR SWITCH : Description

It operates angle of the door mirror face. It transmits mirror face adjust operation to AUTOMATIC DRIVE POSITIONER CONTROL UNIT.

MIRROR SWITCH : Component Function Check

1. CHECK MIRROR SWITCH FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "MIR CON SW-UP/DN", "MIR CON SW-RH/LH" in the "DATA MONITOR" mode using CON-SULT-III.
- 3. Check mirror switch signal under the following conditions.

Monitor item	Condition	Status
MIR CON SW-UP/DN	When operating the mirror switch up or down side.	ON
MIR CON SW-OF/DIN	Other than above.	OFF
MIR CON SW-RH/I H	When operating the mirror switch right or left side.	ON
	Other than above.	OFF

Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Perform diagnosis procedure.Refer to <u>ADP-90, "MIRROR SWITCH : Diagnosis Procedure"</u>.

MIRROR SWITCH : Diagnosis Procedure

INFOID:000000005141582

1.CHECK MIRROR SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror remote control switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror remote control switch harness connector and ground.

((+)			
Door mirror remo	Door mirror remote control switch		Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	4			
D17	12	Ground	-	
זוט	13	Ground	5	
	15			

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK MIRROR SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror remote control switch harness connector.

INFOID:000000005141580

< DTC/CIRCUIT DIAGNOSIS >

Connector	sitioner control unit	Doo	Door mirror remote control switch		Continuity
Connector	Terminal	Conne	ector	Terminal	Continuity
	3			15	
M51	4		13		Existed
NICT	19			12	Existed
	20			4	
	etween automatic driv		er control u	unit harness conn	ector and ground.
	rive positioner control unit				Continuity
Connector	Termina	al			
	3			Ground	
M51	4				Not existed
-	19				
	20				
Turn ignition switch	ROR REMOTE CON OFF. etween door mirror re				and ground.
Door mirre	or remote control switch				
Connector	Termina	al		Ground	Continuity
D17	7				Existed
					LXISIEU
the inspection result	normal?				LAISteu
	normal?				LXISIEU
'ES >> GO TO 4.	normal? eplace harness.				LAISteu
	eplace harness.				LAISteu
YES >> GO TO 4. NO >> Repair or re CHECK MIRROR SN neck door mirror remo	eplace harness. WITCH ote control switch (min				LAISIEU
YES >> GO TO 4. NO >> Repair or re CHECK MIRROR SV neck door mirror remo offer to ADP-91, "MIRR	eplace harness. MITCH ote control switch (min COR SWITCH : Comp				LAISIEU
YES >> GO TO 4. NO >> Repair or re- CHECK MIRROR SN neck door mirror remo- efer to ADP-91, "MIRR the inspection result	eplace harness. MITCH ote control switch (min COR SWITCH : Comp				
YES >> GO TO 4. NO >> Repair or re- CHECK MIRROR SN Deck door mirror remo efer to ADP-91, "MIRR the inspection result YES >> GO TO 5.	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal?	ponent Insp	<u>ection"</u> .	ritch). Refer to MI	
YES >> GO TO 4. NO >> Repair or re- CHECK MIRROR SN Deck door mirror remo efer to ADP-91, "MIRR the inspection result YES >> GO TO 5.	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal?	ponent Insp	<u>ection"</u> .	vitch). Refer to <u>MI</u>	
YES >> GO TO 4. NO >> Repair or residence CHECK MIRROR SV Deck door mirror remote Defer to ADP-91, "MIRR the inspection result YES >> GO TO 5. IO >> Replace do	eplace harness. WITCH ote control switch (min <u>OR SWITCH : Comp</u> <u>normal?</u> oor mirror remote con	ponent Insp	<u>ection"</u> .	vitch). Refer to <u>MI</u>	R-23, "Removal and Instal
YES >> GO TO 4. NO >> Repair or re- CHECK MIRROR SN neck door mirror remo- efer to <u>ADP-91, "MIRR</u> the inspection result YES >> GO TO 5. NO >> Replace do <u>lation"</u> .	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal? for mirror remote con	ponent Insp	<u>ection"</u> .	vitch). Refer to <u>MI</u>	
YES >> GO TO 4. NO >> Repair or re- CHECK MIRROR SN neck door mirror remo- efer to <u>ADP-91, "MIRR</u> the inspection result YES >> GO TO 5. NO >> Replace do <u>lation</u> ".	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal? for mirror remote con ENT INCIDENT ent.	ponent Insp	<u>ection"</u> .	ritch). Refer to <u>MI</u>	
 YES >> GO TO 4. YES >> Repair or result CHECK MIRROR SY CHECK MIRROR SY The inspection result YES >> GO TO 5. YES SO TO 5.<	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal? por mirror remote con ENT INCIDENT ent. ttent Incident".	ponent Insp	<u>ection"</u> .	vitch). Refer to <u>MI</u>	
YES >> GO TO 4. NO >> Repair or re- CHECK MIRROR SN Deck door mirror remo- efer to ADP-91, "MIRE the inspection result YES >> GO TO 5. NO >> Replace do lation". CHECK INTERMITT Deck intermittent incid	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal? por mirror remote con ENT INCIDENT ent. ttent Incident".	ponent Insp	<u>ection"</u> .	/itch). Refer to <u>MI</u>	
 YES >> GO TO 4. YES >> Repair or result CHECK MIRROR SY CHECK MIRROR SY The inspection result YES >> GO TO 5. YES SO TO 5.<	eplace harness. WITCH ote control switch (min COR SWITCH : Comp normal? or mirror remote con ENT INCIDENT ent. ttent Incident". ON END	ntrol switch	<u>ection"</u> . (mirror sw	vitch). Refer to <u>MI</u>	R-23, "Removal and Insta
 YES >> GO TO 4. YES >> Repair or result CHECK MIRROR SYneck door mirror remonstration result YES >> GO TO 5. YES SO TO 5.	eplace harness. WITCH te control switch (min COR SWITCH : Comp normal? for mirror remote con ENT INCIDENT ent. ttent Incident". ON END I : Component In	ntrol switch	<u>ection"</u> . (mirror sw	vitch). Refer to <u>MI</u>	

2. Disconnect door mirror remote control switch connector.

3. Check continuity between door mirror remote control switch terminals.

< DTC/CIRCUIT DIAGNOSIS >

Door mirror remote control switch			Condition		
Connector	Te	rminal		onution	Continuity
	4			RIGHT	Existed
	4		7 Mirror switch	Other than above	Not existed
	10	7		LEFT	Existed
D17	13			Other than above	Not existed
	45			UP	Existed
	15			Other than above	Not existed
	10			DOWN	Existed
	12			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-23, "Removal and Installation"</u>. CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

Changeover switch is integrated into door mirror remote control switch. Changeover switch has three positions (L, N and R).

It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit.

CHANGEOVER SWITCH : Component Function Check

1.CHECK CHANGEOVER SWITCH FUNCTION

Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in the "DATA MONITOR" mode using CONSULT-III.

Monitor item	Condition			
MIR CHNG SW-R/L	When operating the changeover toward the right or left side.	: ON		
	Other than above.	: OFF		

Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to <u>ADP-92</u>, "CHANGEOVER SWITCH : Diagnosis Procedure".

CHANGEOVER SWITCH : Diagnosis Procedure

1. CHECK CHANGEOVER SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect door mirror remote control switch connector.

3. Turn ignition switch ON.

4. Check voltage between door mirror remote control switch harness connector and ground.

(+)		
Door mirror rem	ote control switch	()	Voltage (V) (Approx.)
Connector	Terminal		
D17	10	Ground	5
	11	Cround	5

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK CHANGEOVER SWITCH CIRCUIT

INFOID:000000005141584

INFOID:000000005141585

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror remote control switch harness connector.

-	Automatic drive posi	tioner control unit	Door mirr	or remote control switch	
-	Connector	Terminal	Connector	Terminal	Continuity
-	N/54	2	D17	11	Evieted
	M51	18	D17	10	Existed
4.	Check continuity bet	ween automatic driv	e positioner co	ntrol unit harness co	nnector and ground.
-	Automatic driv	e positioner control unit			Continuity
_	Connector	Termina	al	Ground	Continuity
-	M51	2		Giouna	Not existed
Ν		blace harness. OR REMOTE CON DFF.	TROL SWITCH	GROUND CIRCUIT	
-	Door mirror	remote control switch			Continuity
_	Connector	Termina	al	Ground	
_	D17	7			Existed
N Ch Re Is t N	CHECK CHANGEOV eck door mirror remote fer to <u>ADP-93, "CHAN</u> he inspection result ne ES >> GO TO 5.	ER SWITCH e control switch (cha IGEOVER SWITCH ormal? or mirror remote cor	: Component li	nspection".	efer to <u>MIR-23, "Removal and</u>
Ch	eck intermittent incide	nt.			
Re	fer to <u>GI-36, "Intermitt</u>	<u>ent Incident"</u> .			
	>> INSPECTIO	N END			
Cŀ	ANGEOVER SV	VITCH : Compo	nent Inspec	tion	INFOID:00000000514158
1.	CHECK CHANGEOV	ER SWITCH			
1. 2.	Turn ignition switch (Disconnect door min		witch connector		

3. Check continuity between door mirror remote control switch terminals.

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< DTC/CIRCUIT DIAGNOSIS >

Door mirror remote control switch		Condition		Continuity	
Connector	Terr	ninal			Continuity
	10 11	- 7	Changeover switch	LEFT	Existed
D17				Other than above	Not existed
יוט				RIGHT	Existed
				Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-23. "Removal and Installation"</u>.

POWER SEAT SWITCH GROUND CIRCUIT

10	WEIN BEAT BWITC		
DTC/CIRCUIT DIAGNOSI			
POWER SEAT SWIT	CH GROUND CI	RCUIT	
Diagnosis Procedure			INFOID:000000005141588
.CHECK POWER SEAT SV	WITCH GROUND CIRCUI	т	
. Turn ignition switch OFF.			
. Disconnect power seat sy			
. Check continuity betweer	n power seat switch conne	ctor and ground.	
Power seat	switch		Continuity
Connector	Terminal	Ground	
B510	32		Existed
the inspection result norma	<u>l?</u>		
YES >> GO TO 2. NO >> Repair or replace	harness.		
.CHECK POWER SEAT SV		ПΤ	
heck reclining switch.			
efer to <u>ADP-70, "Componer</u>	<u>it Inspection"</u> .		
the inspection result norma	<u>l?</u>		
YES >> GO TO 3. NO >> Replace power set	eat switch. Refer to <u>ADP-2</u>	20 "Pomoval and Install	ation"
CHECK INTERMITTENT I			<u>alloit</u> .
efer to <u>GI-36, "Intermittent li</u>			
>> INSPECTION EN	ID		

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TILT & TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000005141589

1. CHECK POWER TILT & TELESCOPIC SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power tilt & telescopic switch connector.

3. Check continuity between power seat switch connector and ground.

Tilt & teles	copic switch		Continuity
Connector	Terminal	Ground	Continuity
M31	1	1	Existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK POWER TILT & TELESCOPIC SWITCH INTERNAL CIRCUIT

Check tilt switch.

Refer to ADP-84, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-232</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-36, "Intermittent Incident".

>> INSPECTION END

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

)R					Λ
Description					INFOID:000000005141598	~
 The sliding sensor is in The pulse signal is inp The driver seat control 	ut to the d	river seat coi	ntrol unit when s	liding is perforn		В
Component Function	on Che	ck			INFOID:000000005141599	С
1.CHECK FUNCTION						
 Turn ignition switch Select "SLIDE PULS Check sliding senso 	SE" in the '			ONSULT-III.		D
Monitor item		Con	dition		Valve	E
-		0	perate (forward)		Change (increase) ^{*1}	
SLIDE PULSE	Seat slidin	g O	perate (backward)		Change (decrease) ^{*1}	F
		R	elease		No change ^{*1}	
 *1: The value at the seat positi <u>Is the indication normal?</u> YES >> INSPECTIO NO >> Perform diag Diagnosis Procedu 1. CHECK SLIDING SE 1. Turn ignition switch 	N END gnosis pro Ire NSOR SIC	cedure. Refe	r is connected is cor			G H
		driver seat o	ontrol unit harne	ess connector a	nd ground using oscilloscope.	AD
(+)						
Driver seat control	unit	(-)	Co	ndition	Voltage (V) (Approx.)	К
Connector	Terminal				(Αρριολ.)	
B503	24	Ground	Seat sliding	Operate	10mSec/div	L
						M
				Other than above	0 or 5	M

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		sensor	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B503	24	B526	24	Existed	

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	24		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${\it 3.}$ Check sliding sensor power supply

1. Connect driver seat control unit connector.

2. Turn ignition switch ON.

3. Check voltage between sliding sensor harness connector and ground.

(+) Sliding sensor		(-)	Voltage (V) (Approx.)	
Connector	Terminal			
B526	16	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

Driver seat	Driver seat control unit		sensor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B503	16	B526	16	Existed

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK SLIDING SENSOR GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

Driver seat	Driver seat control unit		Sliding sensor		
Connector	Terminal	Connector	Terminal	Continuity	
B503	31	B526	31	Existed	

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOS	13 >		
s the inspection result norma			
YES >> GO TO 6.			
NO >> Repair or replace	e harness.		
CHECK SLIDING SENSO	R GROUND CIRCUIT 2		
. Connect driver seat cont 2. Check continuity betwee		arness connector and grour	nd.
Driver seat	control unit		
Connector	Terminal	Ground	Continuity
B503	31		Existed
s the inspection result norma			
MOTOR : Explor	ded View".	e cushion frame). Refer to <u>DP-227, "Removal and Inst</u>	

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description

- The reclining motor is installed to the seatback frame.
- The pulse signal is input to the driver seat control unit when the reclining is operated.
- The driver seat control unit counts the pulse and calculates the reclining amount of the seat.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "RECLN PULSE" in the "Data monitor" mode using CONSULT-III.
- 3. Check reclining sensor signal under the following conditions.

Monitor item	Condition		Value
		Operate (forward)	Change (increase) ^{*1}
RECLN PULSE	Seat reclining	Operate (backward)	Change (decrease) ^{*1}
		Release	No change ^{*1}

^{*1}: The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-100, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141603

1.CHECK RECLINING SENSOR SIGNAL

1. Turn ignition switch ON.

2. Check voltage signal between driver seat control unit harness connector and ground using oscilloscope.

(+) Driver seat control unit		(–) Condition		dition	Voltage (V) (Approx.)
Connector	Terminal				
B503	9	Ground	Seat reclining	Operate Other than above	10mSec/div 10mSec/div 2V/div JMJIA0119ZZ 0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

2. CHECK RECLINING SENSOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit and reclining motor connector.
- Check continuity between driver seat control unit harness connector and reclining motor harness connector.

ADP-100

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

	it control unit	Reclir	ning motor	Continuity
Connector	Terminal	Connector	Terminal	
B503	9	B523	9	Existed
Check continuity b	etween driver seat co	ntrol unit harness co	onnector and groun	d.
Driv	ver seat control unit			Continuity
Connector	Termina	al	Ground	Continuity
B503	9			Not existed
CHECK RECLINING Connect driver sea Turn ignition switcl	replace harness. G SENSOR POWER S at control unit connect	or.	and ground.	
	(1)			
	(+) Reclining motor		(-)	Voltage (V)
Connector	Termina	al	(-)	(Approx.)
B523	16		Ground	Battery voltage
he inspection result	_		Croana	Ballery Vollage
		ector.		
	h OFF. seat control unit conne etween driver seat co		onnector and reclin	ng motor harness c
Disconnect driver s Check continuity b tor.	seat control unit conne	ntrol unit harness co		ng motor harness c
Disconnect driver s Check continuity b tor.	seat control unit conne etween driver seat co	ntrol unit harness co	onnector and reclin	ng motor harness c
Disconnect driver s Check continuity b tor. Driver sea	seat control unit conne etween driver seat co	ntrol unit harness co Reclir	ning motor	
Disconnect driver s Check continuity b tor. Driver sea Connector B503	seat control unit conne etween driver seat co it control unit Terminal	ntrol unit harness co Reclir Connector B523	ning motor Terminal 16	Continuity Existed
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b	seat control unit conne etween driver seat co at control unit Terminal 16 etween driver seat co	ntrol unit harness co Reclir Connector B523	ning motor Terminal 16	Continuity Existed
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b Driv	seat control unit conne etween driver seat co at control unit Terminal 16 retween driver seat co ver seat control unit	ntrol unit harness concerns a connector B523 Introl unit harness concerns a c	ning motor Terminal 16 Donnector and groun	Continuity Existed
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b Driv Connector	seat control unit conne etween driver seat co it control unit Terminal 16 etween driver seat co ver seat control unit Termina	ntrol unit harness concerns a connector B523 Introl unit harness concerns a c	ning motor Terminal 16	Continuity Existed d. Continuity
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b Driv Connector B503	seat control unit connected etween driver seat control unit Terminal 16 retween driver seat co ver seat control unit Termina 16 16 16 16 16 16 16	ntrol unit harness concerns a connector B523 Introl unit harness concerns a c	ning motor Terminal 16 Donnector and groun	Continuity Existed d.
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b Oriv Connector B503 he inspection result ES >> Replace dr O >> Repair or r CHECK RECLINING Turn ignition switch Disconnect driver s	seat control unit connected endriver seat control unit at control unit Terminal 16 retween driver seat control unit rer seat control unit 16 normal? river seat control unit. replace harness. G SENSOR GROUND	Refer to ADP-227, O CIRCUIT 1	Terminal Terminal 16 Terminal Ground "Removal and Insta	Continuity Existed d. Continuity Not existed
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b Driv Connector B503 he inspection result ES >> Replace dr D >> Repair or r CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity b tor.	seat control unit conne etween driver seat control unit Terminal 16 retween driver seat control unit restat control unit 16 normal? river seat control unit. replace harness. G SENSOR GROUND h OFF. seat control unit conne retween driver seat control seat control unit conne	Refer to ADP-227, O CIRCUIT 1 ector. ontrol unit harness co	Terminal Terminal 16 Description Ground "Removal and Insta	Continuity Existed d. Continuity Not existed
Disconnect driver s Check continuity b tor. Driver sea Connector B503 Check continuity b Driv Connector B503 he inspection result ES >> Replace dr D >> Repair or r CHECK RECLINING Turn ignition switch Disconnect driver s Check continuity b tor.	seat control unit connected endriver seat control unit Terminal 16 retween driver seat co ver seat control unit Termina 16 retween driver seat co ver seat control unit 16 normal? river seat control unit. replace harness. G SENSOR GROUND h OFF. seat control unit connected	Refer to ADP-227, O CIRCUIT 1 ector. ontrol unit harness co	Terminal Terminal 16 Terminal Ground "Removal and Insta	Continuity Existed d. Continuity Not existed

B503

31

B523

31

Existed

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $6. {\sf CHECK RECLINING SENSOR GROUND CIRCUIT 2}$

1. Connect driver seat control unit connector.

2. Check continuity between reclining sensor harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	31		Existed

Is the inspection result normal?

YES >> Replace reclining motor. Refer to <u>SE-223, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

А Description INFOID:000000005141604 The lifting sensor (front) is installed to the seat slide cushion frame. В The pulse signal is input to the driver seat control unit when the lifting (front) is operated. The driver seat control unit counts the pulse and calculates the lifting (front) amount of the seat. **Component Function Check** INFOID:000000005141605 **1.**CHECK FUNCTION 1. Turn ignition switch ON. D Select "LIFT FR PULSE" in the "Data monitor" mode using CONSULT-III. 2. Check the lifting sensor (front) signal under the following conditions. 3. Condition Value Monitor item Operate (Up) Change (increase)*1 F LIFT FR PULSE Seat lifting (front) Operate (Down) Change (decrease)*1 No change^{*1} Release ^{*1}:The value at the seat position attained when the battery is connected is considered to be 32768. Is the indication normal? YES >> INSPECTION END Н >> Perform diagnosis procedure. Refer to ADP-103, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:000000005141606 1.CHECK LIFTING SENSOR (FRONT) SIGNAL Turn ignition switch ON. 1. Check the voltage signal driver seat control unit harness connector and ground with an oscilloscope. 2. ADP

(+) Driver seat cor	ntrol unit	(–) Condition		ondition	Voltage (V) (Approx.)	K
Connector	Terminal				(/ ())	
				Operate	10mSec/div	L
B503	25	Ground	Seat Lifting (front)		2V/div JMJIA0119ZZ	N
				Other than above	0 or 5	N

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit and lifting motor (front) connector.

3. Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Lifting motor (front)		
Connector	Terminal	Connector Terminal		Continuity	
B503	25	B527	25	Existed	

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	25		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

- 1. Connect driver seat control unit connector.
- 2. Turn ignition switch ON.

3. Check voltage between lifting motor (front) harness connector and ground.

(+) Lifting motor (front)		()	Voltage (V) (Approx.)	
Connector	Terminal		() []]]]]	
B527	16	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat	Driver seat control unit		Lifting motor (front)	
Connector	Terminal	Connector Terminal		Continuity
B503	16	B527	16	Existed

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B503	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227</u>, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

 Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat	Driver seat control unit		Lifting motor (front)		
Connector	Terminal	Connector Termi		Continuity	
B503	31	B527	31	Existed	

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNO				
<u>Is the inspection result norr</u> YES >> GO TO 6.	<u>nal?</u>			А
NO >> Repair or repla				
6.CHECK LIFTING SENS	OR (FRONT) GROUND CIR	RCUIT 2		D
 Connect driver seat con Check continuity between 	ntrol unit connector. een lifting motor (front) harne	ess connector and ground.		— В
Driver sea	at control unit			С
Connector	Terminal	Ground	Continuity	
B503	31		Existed	D
Is the inspection result norr	nal?			
YES >> Replace lifting	motor (front). Refer to <u>SE-22</u>	23, "Exploded View".		_
NO >> Replace driver	seat control unit. Refer to A	DP-227, "Removal and Ins	<u>stallation"</u> .	E
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< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description

- The lifting sensor (rear) is installed to the seat slide cushion frame.
- The pulse signal is input to the driver seat control unit when the lifting (rear) is operated.
- The driver seat control unit counts the pulse and calculates the lifting (rear) amount of the seat.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "LIFT RR PULSE" in the "Data monitor" mode using CONSULT-III.
- 3. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
		Operate (Up)	Change (increase) ^{*1}
LIFT RR PULSE	Seat lifting (rear)	Operate (Down)	Change (decrease) ^{*1}
		Release	No change ^{*1}

^{*1}: The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-106, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141609

1.CHECK LIFTING SENSOR (REAR) SIGNAL

1. Turn ignition switch ON.

2. Check voltage signal between driver seat control unit harness connector and ground with oscilloscope.

(+) Driver seat control unit		()	Condition		Voltage (V) (Approx.)	
B503	10	Ground	Seat Lifting (rear)	Seat Lifting (rear)	10mSec/div 2V/div JMJIA0119ZZ	
				Other than above	0 or 5	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (REAR) CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit and lifting motor (rear) connector.
- 3. Check the continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

INFOID:000000005141607

INEOID:000000005141608

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting m	Continuity		
Connector	Terminal	Connector	Terminal	- Continuity	
B503	10	B529	10	Existed	
Check the continuit	ty between driver sea	t control unit harness	s connector and gro	ound.	
Drive	er seat control unit			Continuity	
Connector	Termina	al	Ground	-	
B503 10				Not Existed	
CHECK LIFTING SE Connect driver sea Turn ignition switch	eplace harness. ENSOR (REAR) POW t control unit connect o ON. between lifting motor	or.	ector and ground.		
	(+)				
Lifting motor (rear)		(-)	()		
Connector	Terminal			(Approx.)	
B529	16	Grour	nd	Battery voltage	
CHECK LIFTING SE	ENSOR (REAR) POW	ER SUPPLY CIRCU	ЛТ		
CHECK LIFTING SE Turn ignition switch Disconnect driver s		ector.		fting motor (rear) h	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector.	OFF.	ector. at control unit harnes			
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector.	o OFF. seat control unit conne ty between driver sea	ector. at control unit harnes	ss connector and lif	fting motor (rear) h Continuity	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat	OFF. seat control unit connecty ty between driver sea	ector. at control unit harnes Lifting m	ss connector and lif		
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503	OFF. seat control unit connecty ty between driver sea control unit Terminal	ector. at control unit harnes Lifting m Connector B529	ss connector and lif hotor (rear) Terminal 16	Continuity Existed	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit	OFF. seat control unit connecty ty between driver sea control unit Terminal 16	ector. at control unit harnes Lifting m Connector B529	ss connector and lif hotor (rear) Terminal 16	Continuity Existed	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit	o OFF. Seat control unit connecty ty between driver sea control unit Terminal 16 ty between driver sea	ector. at control unit harnes Lifting m Connector B529 t control unit harness	ss connector and lif hotor (rear) Terminal 16	Continuity Existed	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continui connector. Driver seat Connector B503 Check the continuit Drive Connector B503	a OFF. seat control unit connective ty between driver sea control unit Terminal 16 ty between driver sea er seat control unit Terminal 16	ector. at control unit harnes Lifting m Connector B529 t control unit harness	ss connector and lif	Continuity Existed	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit connector. Driver seat Connector B503 Check the continuit Driver Connector B503 Check the continuit Driver Connector B503 ne inspection result S >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit	a OFF. seat control unit connective ty between driver seat control unit Terminal 16 ty between driver seat er seat control unit 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC	ector. at control unit harnes Lifting m Connector B529 It control unit harness al Refer to <u>ADP-227, "</u> DUND CIRCUIT 1 ector.	ss connector and lif	Continuity Existed Dund. Continuity Not existed lation".	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit connector. Driver seat Connector B503 Check the continuit Driver Connector B503 ne inspection result S >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit	OFF. seat control unit connective between driver seat control unit Terminal 16 ty between driver seat er seat control unit Termina 16 ty between driver seat er seat control unit Termina 16 ty between driver seat er seat control unit Termina 16 ty between driver seat er seat control unit Termina 16 ty between driver seat er seat control unit Termina 16 ty between driver seat er seat control unit Termina 16 ty between driver seat ty between driver seat ty between driver seat ty between driver seat	ector. at control unit harnes Lifting m Connector B529 It control unit harness al Refer to <u>ADP-227, "</u> DUND CIRCUIT 1 ector. at control unit harnes	ss connector and lif	Continuity Existed Dund. Continuity Not existed lation".	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit connector. Driver seat Connector B503 Check the continuit Driver Connector B503 ne inspection result S >> Replace dr D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s Check the continuit	OFF. seat control unit connective between driver seat control unit Terminal 16 ty between driver seat er seat control unit Termina 16 normal? iver seat control unit. eplace harness. ENSOR (REAR) GRC OFF. seat control unit connective	ector. at control unit harnes Lifting m Connector B529 It control unit harness al Refer to <u>ADP-227, "</u> DUND CIRCUIT 1 ector. at control unit harnes	ss connector and lif	Continuity Existed Dund. Continuity Not existed lation".	

B503

31

B529

31

Existed

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $6. {\sf CHECK\ LIFTING\ SENSOR\ (REAR)\ GROUND\ CIRCUIT\ 2}$

1. Connect driver seat control unit connector.

2. Check continuity between lifting motor (rear) harness connector and ground.

Driver seat	control unit		Continuity	
Connector	Terminal	Ground		
B503	31		Existed	

Is the inspection result normal?

YES >> Replace lifting motor (rear). Refer to <u>SE-223, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>.

TILT SENSOR

TILT SENSOR

TILT SENSOR						
Description						INFOID:0000000051416
 The tilt sensor is ins The resistance of tilt The terminal voltage resistance. Automat 	sensor ch of automa	anges acc atic drive p	ording to the	e up/down	changes accord	ing to a change of tilt sense
Component Fund	ction Ch	eck				INFOID:0000000051416
1.CHECK FUNCTIO	N					
 Turn ignition swite Select "TILT SEN Check the tilt sen 	ch ON. " in the "Da				LT-III.	
Monitor i	tem		Conditior	า		Value
TILT SEN		Tilt po	sition		1.1	Change between 1 V (Close to top) V (Close to bottom)
Diagnosis Proce	liagnosis p dure SOR SIGN		Refer to <u>AD</u>	P-109, "Di	agnosis Proced	URE".
. Turn ignition swite 2. Check voltage au		ve positior	ner control u	nit harness	s connector and	ground.
Automatic drive po	sitioner contr	ol unit	(-)		Condition	Voltage (V) (Approx.)
Connector	Term	inal				
M51	7		Ground	Tilt	position	Change between 1.1 V (Close to top) 3.9 V (Close to bottom)
s the inspection result YES >> Replace a NO >> GO TO 2 CHECK TILT SEN Turn ignition swite Disconnect autor	automatic d SOR CIRC	UIT				emoval and Installation".
 Check continuity sensor harness continuity 	between a onnector.	utomatic c		ner control	unit harness co	onnector and tilt & telescopi
Automatic drive	-	trol unit	Copr	Tilt & teles	copic sensor Terminal	Continuity
M51		7		148	3	Existed
	between au	utomatic d				nector and ground.
	drive positior			-		Continuity
Connector		Term			Ground	
M51		7				Not existed

Is the inspection result normal?

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.
- NO >> Repair or replace harness.

3.CHECK TILT SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.

3. Check voltage between tilt & telescopic sensor harness connector and ground.

	(+) Tilt & telescopic sensor		Voltage (V) (Approx.)
Connector	Terminal		(
M48	1	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TILT SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector, door mirror (driver side) connector and door mirror (passenger side) connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic sensor		
Connector	Terminal	Connector	Terminal	Continuity	
M52	33	M48	1	Existed	

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228</u>, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TILT SENSOR GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic sensor		
Connector	Terminal	Connector	Terminal	Continuity	
M52	41	M48	4	Existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TILT SENSOR GROUND CIRCUIT 2

1. Connect automatic drive positioner control unit connector.

2. Check continuity between automatic drive positioner control unit harness connector and ground.

TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

•	Automatic drive po	sitioner control unit		Continuity	А
-	Connector	Terminal	Ground	Continuity	
-	M52	41		Existed	_
		10			В

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to <u>ST-15, "WITHOUT</u> <u>ELECTRIC MOTOR : Exploded View"</u>.

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-228</u>, "<u>Removal and Installation</u>".

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Description

• The telescopic sensor is installed to the steering column assembly.

- The resistance of telescopic sensor changes according to the forward/backward position of steering column.
- The terminal voltage of automatic drive positioner control unit changes according to a change of telescopic sensor resistance. Automatic drive positioner control unit calculates the telescopic position from the voltage.

Component Function Check

INFOID:000000005141614

INFOID:000000005141613

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in the "Data monitor" mode using CONSULT-III.
- 3. Check the tilt sensor signal under the following conditions.

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.5 [V] (close to top) 4.5 [V] (close to bottom)

Is the indication normal?

YES >> INSPECTION END.

NO >> Perform diagnosis procedure. Refer to <u>ADP-112, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141615

1.CHECK TELESCOPIC SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage automatic drive positioner control unit harness connector and ground.

(+) Automatic drive positioner control unit		(-)	Condition	Voltage (V) (Approx.)	
Connector	Terminal			()	
M51	23	Ground	Telescopic position	Change between 0.5 [V] (close to top) 4.5 [V] (close to bottor	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

2. CHECK TELESCOPIC SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive positioner control unit		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	23	M48	2	Existed

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	23		Not existed

Is the inspection result normal?

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3. NO >> Repair or replace harness.

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.

3. Check voltage between tilt & telescopic sensor harness connector and ground.

(+)				(
Tilt & telesc	copic sensor	()	Voltage (V) (Approx.)	
Connector	Terminal	-	(. + +)	Г
M48	1	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector, door mirror (driver side) connector and door mirror (passenger side) connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic G sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & teleso	copic sensor	Continuity	Н
Connector	Terminal	Connector	Terminal	Continuity	
M52	33	M48	1	Existed	

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic driv	Automatic drive positioner control unit		Continuity	ADP
Connector	Terminal	Ground	Continuity	
M52	33		Not existed	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228</u>, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic M sensor harness connector.

Automatic drive	positioner control unit	Tilt & teles	copic sensor	Continuity	N
Connector	Terminal	Connector	Terminal	Continuity	
M52	41	M48	4	Existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 2

1. Connect automatic drive positioner control unit connector.

2. Check continuity between automatic drive control unit harness connector and ground.

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M52	41		Existed	

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to <u>ST-15, "WITHOUT</u> <u>ELECTRIC MOTOR : Exploded View"</u>.

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-228. "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS > MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

- The mirror sensor (driver side) is installed to the door mirror (driver side).
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror (driver side) is oper-• ated.
- · Automatic drive positioner control unit calculates the door mirror position according to the change of the voltage of 2 sensor input terminals.

DRIVER SIDE : Component Function Check

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D INFOID:000000005141617

INFOID:000000005141618

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- Select "MIR/SEN LH U-D", "MIR/SEN LH R-L" in the "Data monitor" using CONSULT-III. 2.
- Check mirror sensor (driver side) signal under the following condition. 3.

			F
Monitor item	Condition	Value	
MIR/SEN LH U-D	— Door mirror (driver side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)	G
MIR/SEN LH R-L		Change between 0.6 [V] (close to left edge) 3.4 [V] (close to right edge)	H

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-115, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

1.CHECK DOOR MIRROR SENSOR (DRIVER SIDE) SIGNAL

- 1. Turn ignition switch ON.
- Check voltage automatic drive positioner control unit harness connector and ground. 2.

(+) Automatic drive positioner control unit				
		()	Condition	Voltage (V) (Approx.)
Connector	Terminal			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
MEA	6	- Ground	Door mirror (Driver side) position	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
M51	22	Ground		Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation". NO >> GO TO 2.

2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

1. Turn ignition OFF.

- Disconnect automatic drive positioner control unit connector and door mirror (drive side) connector. 2.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Door mirror	(driver side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	6	D3	9	Existed
	22		10	LAISIEU

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	6	Ground	Not existed
I CIVI	22		NUL EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK DOOR MIRROR (DRIVER SIDE) SENSOR POWER SUPPLY

1. Connect automatic drive positioner control unit connector.

2. Turn ignition switch ON.

3. Check voltage between door mirror (driver side) harness connector and ground.

(+) Door mirror (driver side)		(-)	Voltage (V) (Approx.)	
Connector	Connector Terminal			
D3	D3 11		5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit connector, tilt&telescopic switch connector and door mirror (passenger side) connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

Automatic drive positioner control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	D3	11	Existed

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M52 33			Not existed	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND 1

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

ADP-116

Automatic drive pos	sitioner control unit	Door mirro	r (driver side)	
Connector	Terminal	Connector	Terminal	Continuity
M52	41	D3	12	Existed
CHECK DOOR MIRE	eplace harness.	rol unit connector.		nector and ground.
Automatic dr Connector	ive positioner control unit		Ground	Continuity
M52 s the inspection result r	41			Existed
	<u>MBLY : Removal and</u> DE			fer to <u>MIR-20, "DOOR MIR-</u>
operated.	ensors (horizontal ar oner control unit calc terminals.	nd vertical) is chang ulates the door mirrc	ed when the doc r position accordi	ing to the change of the volt-
	ON. H U-D", "MIR/SEN R ensor (passenger side			
Monitor iter	n	Condition		Value
MIR/SEN RH U-D	Door mi	rror (passenger side)	3.4 [0.6 [\	hange between V] (close to peak) /] (close to valley)
MIR/SEN RH R-L		·	3.4 [V]	nange between (close to left edge) (close to right edge)
s the indication normal?				
YES >> INSPECTIONO >> Perform dia		efer to <u>ADP-117, "P/</u>	SSENGER SIDE	E : Diagnosis Procedure".
PASSENGER SIDI	E : Diagnosis P	rocedure		INFOID:00000000514162
CHECK DOOR MIRE		SENGER SIDE) SIG	NAL	
 Turn ignition switch Check voltage auto 	ON. matic drive positione	r control unit harnes	s connector and (ground.

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive	(+) Automatic drive positioner control unit		Condition	Voltage (V)	
Connector	Terminal			(Approx.)	
ME4	5	Ground	Door mirror (Passenger side) position	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)	
M51	21	Ground		Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror (passenger side) connector.
- Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

Automatic drive positioner control unit		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	5	D33	9	Existed
I CIVI	21	D33	10	

4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive po	Automatic drive positioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M51	5	Ground	Not existed	
I GIVI	21		NUL EXISIEU	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) POWER SUPPLY

- 1. Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between door mirror (passenger side) harness connector and ground.

((+)			
Door mirror (passenger side)		()	Voltage (V) (Approx.)	
Connector	Terminal		()	
D33 11		Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector, tilt&telescopic switch connector and door mirror (driver side) connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

ADP-118

	ositioner control unit	Door mino	r (passenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	D33		
Check continuity b	etween automatic driv	ve positioner contro	ol unit harness connec	tor and ground.
Automatic c	Irive positioner control unit			Continuity
Connector	Termina	al	Ground	
M52	33			Not existed
NO >> Repair or r .CHECK DOOR MIR Turn ignition switch Disconnect automa	utomatic driver positio eplace harness. ROR (PASSENGER OFF. atic drive positioner co	SIDE) SENSOR G		
senger side) conne			r (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
M52	41	D33	12	Existed
	eplace harness. ROR (PASSENGER)	SIDE) SENSOR G	ROUND 2	
CHECK DOOR MIR	ROR (PASSENGER drive positioner cont	rol unit connector.	ROUND 2	tor and ground.
CHECK DOOR MIR Connect automatic Check continuity b	ROR (PASSENGER drive positioner cont etween automatic driv	rol unit connector. ve positioner contro		tor and ground.
CHECK DOOR MIR Connect automatic Check continuity b	ROR (PASSENGER drive positioner cont	rol unit connector. /e positioner contro		tor and ground.
CHECK DOOR MIR Connect automatic Check continuity b Automatic c Connector M52	ROR (PASSENGER and the positioner control unit remained by the positioner control unit remained by the positioner control unit the second by the second by the positioner control unit the second by t	rol unit connector. /e positioner contro	ol unit harness connec	
CHECK DOOR MIR Connect automatic Check continuity b Automatic of Connector M52 the inspection result YES >> Replace au NO >> Replace do	ROR (PASSENGER drive positioner cont etween automatic driv rive positioner control unit Termina 41 normal? utomatic drive positior	rol unit connector. /e positioner contro al ner control unit. Re ilt in passenger sid	ol unit harness connec	Continuity Existed oval and Installation

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description

- The seat sliding motor is installed to the seat cushion frame.
- The seat sliding motor is activated with the driver seat control unit.
- The seat is slid frontward/rearward by changing the rotation direction of sliding motor.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT SLIDE" in "Active test" mode using CONSULT-III.
- 3. Check the sliding motor operation.

Test item		Description	
	OFF	Seat sliding	Stop
SEAT SLIDE	FR		Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-120, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141624

1. CHECK SLIDING MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT SLIDE") using CONSULT-III
- 5. Check voltage between sliding motor harness connector and ground.

(+) Sliding mo	(+) Sliding motor		Condition		Voltage (V) (Approx.)
Connector	Terminal				
				OFF	0
	35			FR (forward)	Battery voltage
DEOE		Ground		RR (backward)	0
B323	B525 Ground 42	- Ground SEAT SLIDE	GIOUNU SEAT SLIDE	OFF	0
			FR (forward)	0	
			RR (backward)	Battery voltage	

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-223. "Exploded View"</u>. NO >> GO TO 2.

2. CHECK SLIDING MOTOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector.
- 3. Check continuity between driver seat control unit harness connector and sliding motor harness connector.

INFOID:000000005141622

INFOID:000000005141623

SLIDING MOTOR

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description

- The seat reclining motor is installed to the seat back frame.
- The seat reclining motor is activated with the driver seat control unit.
- The seatback is reclined frontward/rearward by changing the rotation direction of reclining motor.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT RECLINING" in "Active test" mode using CONSULT-III.
- 3. Check the reclining motor operation.

Test item		Description	
	OFF	Seat reclining	Stop
SEAT RECLINING	FR		Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-122, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141628

1.CHECK RECLINING MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect reclining motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT RECLINING") using CONSULT-III
- 5. Check voltage between reclining motor harness connector and ground.

(+) Reclining motor		()	Condition		Voltage (V) (Approx.)
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			OFF	0	
	36	36 Ground SEAT RECLINING 44		FR (forward)	Battery voltage
DEOD				RR (backward)	0
B523			SEAT RECLINING	OFF	0
4	44			FR (forward)	0
			RR (backward)	Battery voltage	

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.) Refer to <u>SE-223, "Exploded View"</u>. NO >> GO TO 2.

2. CHECK RECLINING MOTOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and reclining motor harness connector.

INFOID:000000005141626

INEOID:000000005141627

RECLINING MOTOR

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

- The lifting motor (front) is installed to the seat slide cushion frame.
- The lifting motor (front) is activated with the driver seat control unit.
- The lifter (front) is moved upward/downward by changing the rotation direction of lifting motor (front).

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT LIFTER FR" in "Active test" mode using CONSULT-III.
- 3. Check the lifting motor (front) operation.

Test item		Description	
	OFF		Stop
SEAT LIFTER FR	UP	Seat lifting (front)	Upward
	DWN		Downward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-124, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141632

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect lifting motor (front) connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT LIFTER FR") using CONSULT-III.
- 5. Check voltage between lifting motor (front) harness connector and ground.

	(+) Lifting motor (front)		Condition		Voltage (V) (Approx.)	
Connector	Terminal					
	37			OFF	0	
				UP	0	
B527		- Ground SEA	Oraș un d	SEAT LIFTER FR	DWN (down)	Battery voltage
D327			SEALLIFTERFR	OFF	0	
	45			UP	Battery voltage	
				DWN (down)	0	

Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to <u>SE-223, "Exploded View"</u>. NO >> GO TO 2.

2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

INFOID:000000005141630

INFOID:000000005141631

LIFTING MOTOR (FRONT)

Driver sea	at control unit	Lifting m	otor (front)	Continuity	
Connector	Terminal	Connector	Terminal		
B504	37 45	B527	37 45	Existed	
heck continuity t	petween driver seat co	ntrol unit harness co			
			.		
Connector	ver seat control unit Termina	al		Continuity	
	37		Ground		
B504	45			Not existed	

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description

- The lifting motor (rear) is installed to the seat slide cushion frame.
- The lifting motor (rear) is activated with the driver seat control unit.
- The seat lifter (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT LIFTER RR" in "Active test" mode using CONSULT-III.
- 3. Check the lifting motor (rear) operation.

Test item		Description		
	OFF		Stop	
SEAT LIFTER RR	UP	Seat lifting (rear)	Upward	
	DWN		Downward	

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-126, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141636

1.CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect lifting motor (rear) connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT LIFTER RR") using CONSULT-III
- 5. Check voltage between lifting motor (rear) harness connector and ground.

	(+) Lifting motor (rear)		Condition		Voltage (V) (Approx.)	
Connector	Terminal				(*********	
	38	Ground		OFF	0	
				UP	Battery voltage	
DE20			Ground SEAT	SEAT LIFTER RR	DWN (DOWN)	0
B529				SEAT LIFTER RR	OFF	0
	39			UP	0	
				DWN (DOWN)	Battery voltage	

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to <u>SE-223, "Exploded View"</u>. NO >> GO TO 2.

2.CHECK LIFTING MOTOR (REAR) CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector and lifting motor (rear) connector.
- Check continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

INFOID:000000005141634

INFOID:000000005141635

LIFTING MOTOR (REAR)

Connector Terminal Connector Terminal Connector B504 33 B529 33 Existed Check continuity between driver seat control unit harness connector and ground. Driver seat control unit Connector Connector Continuity 0 0 0 0 0 0 Driver seat control unit Ground Continuity Connector Continuity 1 0	Driver sea	t control unit	Lifting m	otor (rear)	Continuity	
B504 39 B529 39 Existed eck continuity between driver seat control unit harness connector and ground. Image: Continuity of the seat control unit harness connector and ground. Image: Continuity of the seat control unit harness connector and ground. Driver seat control unit Continuity of the seat control unit harness connector and ground. Continuity of the seat control unit harness connector and ground. Driver seat control unit Terminal of the seat control unit harness connector and ground. Continuity of the seat control unit harness connector and ground. B504 38 Mot existed B504 39 Not existed Inspection result normal? >> Replace driver seat control unit. Refer to ADP-227, "Removal and Installation".	Connector		Connector		Continuity	
Driver seat control unit Continuity Connector Terminal B504 38 B504 39 Spection result normal? >> Replace driver seat control unit. Refer to ADP-227, "Removal and Installation".	B504		B529		Existed	
Connector Terminal Ground Continuity B504 38 Not existed Not existed Spection result normal? >> Replace driver seat control unit. Refer to ADP-227. "Removal and Installation". Continuity	ck continuity b	etween driver seat cor	ntrol unit harness co	nnector and ground		
Connector Terminal B504 38 39 Not existed Spection result normal? >> Replace driver seat control unit. Refer to ADP-227. "Removal and Installation".	Driv	ver seat control unit			Continuity	
B504 Not existed 39 Inspection result normal? >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u> .	Connector		1	Ground		
 inspection result normal? S >> Replace driver seat control unit. Refer to <u>ADP-227, "Removal and Installation"</u>. 	B504				Not existed	

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TILT MOTOR

Description

- The tilt motor is installed to the steering column assembly.
- The tilt motor is activated with the automatic drive positioner control unit.
- The steering column is tilted upward/downward by changing the rotation direction of tilt motor.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TILT MOTOR" in "Active test" mode using CONSULT-III.
- 3. Check the tilt motor operation.

Test item		Description		
	OFF		Stop	
TILT MOTOR	UP	Steering tilt	Upward	
	DWN		Downward	

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-128, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141640

INFOID:000000005141638

INFOID:000000005141639

1. CHECK TILT MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic motor connector.
- 3. Turn ignition switch ON.
- 4. Perform "Active test" ("TILT MOTOR") using CONSULT-III.
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

(+) Tilt & telescopic motor		()	Condition		Voltage (V) (Approx.)
Connector	Terminal	•			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			OFF	0	
	3			UP	0
M40		Ground		DWN (down)	Battery voltage
M49			TILT MOTOR	OFF	0
	4			UP	Battery voltage
				DWN (down)	0

Is the inspection result normal?

YES >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-18. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

NO >> GO TO 2.

2. CHECK TILT MOTOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

TILT MOTOR

Connector Terminal Continuity M52 35 M49 4 3 Existed continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Continuity M52 35 Ground Continuity M62 35 Continuity M52 42 Not existed ection result normal? Scontrol unit. Control Applies and Installatio > Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installatio > Repair or replace harness.	Terminal Connector Terminal 35 M49 4 Existed 42 3 Existed 42 3 Existed 42 3 Existed 42 3 Continuity e positioner control unit Ground Continuity 35 A2 Not existed 35 A2 Not existed	eck continuity b
M52 42 M49 3 Existed a continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Continuity Automatic drive positioner control unit Ground Continuity M52 35 Not existed M52 42 Not existed M52 42 Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation	42 M49 3 Existed veen automatic drive positioner control unit harness connector and ground. e positioner control unit Continuity Image: series of the series o	eck continuity b
Automatic drive positioner control unit Automatic drive positioner control unit Continuity Automatic drive positioner control unit Ground Continuity M52 35 Not existed ection result normal? > Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation	veen automatic drive positioner control unit harness connector and ground.	Automatic o
Automatic drive positioner control unit Continuity Connector Terminal M52 35 42 Not existed ection result normal? > Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation"	e positioner control unit Terminal Ground Continuity Continuity Not existed	Automatic o
Connector Terminal Ground Continuity M52 35 Not existed 42 2 Not existed ection result normal? > Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation	Terminal Continuity 35 Ground 42 Not existed ormal? matic drive positioner control unit. Refer to ADP-228, "Removal and Installation"	
Connector Terminal M52 35 42 Not existed ection result normal? > Replace automatic drive positioner control unit. Refer to ADP-228, "Removal and Installation"	Terminal Ground 35 Not existed 42 Not existed ormal? matic drive positioner control unit. Refer to ADP-228, "Removal and Installation"	Connector
M52 <u>42</u> Not existed ection result normal? > Replace automatic drive positioner control unit. Refer to <u>ADP-228</u> , " <u>Removal and Installatio</u>	35 Not existed 42 1 armal? matic drive positioner control unit. Refer to ADP-228, "Removal and Installation"	
ection result normal? > Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installatio</u>	42 <u>ormal?</u> matic drive positioner control unit. Refer to <u>ADP-228</u> , " <u>Removal and Installation</u>	M52
> Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installatio</u>	matic drive positioner control unit. Refer to ADP-228, "Removal and Installation	

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Description

- The telescopic motor is installed to the steering column assembly.
- The telescopic motor is activated with the automatic drive positioner control unit.
- Compresses the steering column by changing the rotation direction of telescopic motor.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO MOTOR" in "Active test" mode using CONSULT-III.
- 3. Check the telescopic motor operation.

Test item	Test item		
	OFF		Stop
TELESCO MOTOR	FR	Steering telescopic	Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-130, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK TELESCOPIC MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic motor connector.
- 3. Turn ignition switch ON.
- 4. Perform "Active test" ("TELESCO MOTOR") using CONSULT-III
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

(+) Tilt & telescopic motor		()	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
				OFF	0	
	1	- Ground	Orregard		FR (forward)	0
M40				TELESCOPIC MO-	RR (backward)	Battery voltage
M49			TOR	OFF	0	
	2			FR (forward)	Battery voltage	
				RR (backward)	0	

Is the inspection result normal?

YES >> Replace telescopic motor. (Built in steering column assembly.) Refer to <u>ST-18. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

2. CHECK TELESCOPIC MOTOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

INFOID:000000005141642

INFOID:000000005141643

INFOID:000000005141644

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description

INFOID:000000005141646

It makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.

Component Function Check

INFOID:000000005141647

1. CHECK DOOR MIRROR MOTOR FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DOOR MIRROR MOTOR LH" and "DOOR MIRROR MOTOR RH" in "Active test" mode using CONSULT-III.
- 3. Check the door mirror motor operation.

Test	item	Desc	ription
	OFF		Stop
	L		Outward
DOOR MIRROR MOTOR LH	R	Door mirror face	Inward
	UP		Upward
	DWN		Downward

Test item		Description	
	OFF		Stop
	L		Inward
DOOR MIRROR MOTOR RH	R	Door mirror face	Outward
	UP		Upward
	DWN		Downward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-132, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141648

1.CHECK DOOR MIRROR MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror connector and ground.

	(+) Door mirror		(–) Cond		Voltage (V) (Approx.)	
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	5			UP	Battery voltage	
		Ground	Ground Door mirror remote control switch	Other than above	0	
D3 (Driver side) D33 (Passenger				LEFT	Battery voltage	
side)		Ground		Other than above	0	
		1		DOWN / RIGHT	Battery voltage	
				Other than above	0	

Is the inspection result normal?

YES >> Replace door mirror. Refer to <u>MIR-20, "DOOR MIRROR ASSEMBLY : Removal and Installation"</u>. NO >> GO TO 2.

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.

Door mirror driver side]					
Automatic drive pos	itioner control unit	Door mirror (driver side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
	16		7		
M51	31	D3	5	Existed	
_	32	-	6		
Door mirror passenger sid	le]				
Automatic drive pos	itioner control unit	Door mirror (pa	assenger side)	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
	14		5		
M51	15	D33	6	Existed	
	30 tween automatic driv	e positioner control u	7 Init connector and g	jround.	
Door mirror driver side]				ground. Continuity	
Door mirror driver side] Automatic dri	tween automatic driv	al			
Door mirror driver side] Automatic dri	tween automatic driv	al	init connector and g		
Door mirror driver side] Automatic dri Connector	tween automatic driv ve positioner control unit Termina 16	al	init connector and g	Continuity	
Door mirror driver side] Automatic dri Connector	tween automatic driv ve positioner control unit Termina 16 31 32	al	init connector and g	Continuity	
Door mirror driver side] Automatic dri Connector M51 Door mirror passenger sic	tween automatic driv ve positioner control unit Termina 16 31 32	al	init connector and g	Continuity Not existed	
Door mirror driver side] Automatic dri Connector M51 Door mirror passenger sic	tween automatic driv ve positioner control unit Termina 16 31 32	al C	init connector and g	Continuity	
Door mirror driver side] Automatic dri Connector M51 Door mirror passenger sic Automatic dri	tween automatic driv	al C	init connector and g	Continuity Not existed	
Door mirror driver side] Automatic dri Connector M51 Door mirror passenger sic Automatic dri	tween automatic driv ve positioner control unit Termina 16 31 32 le] ve positioner control unit Termina	al C	Ground	Continuity Not existed	

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-228, "Removal and Installation"</u>. NO >> Repair or replace harness.

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< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

INFOID:000000005141650

INFOID:000000005141651

- Memory indicator is equipped on the seat memory switch installed to the driver side door trim. The operation signal is inputted to the automatic drive positioner control unit when the memory switch is operated.
- The status of automatic drive positioner system can be checked according to the illuminating/flashing status.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "MEMORY SW INDCTR" in "Active test" mode using CONSULT-III.
- 3. Check the memory indicator operation.

Test item		Descrip	tion
	OFF		OFF
MEMORY SW INDCTR	ON-1	Memory switch indicator	Indicator 1: ON
	ON-2		Indicator 2: ON

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-134, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000005141652

1.CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

	(+) nory switch	(-)	Voltage (V) (Approx.)	
Connector	Terminal			
D5 5		Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2. NO >> Check th

>> Check the following.

- 10A fuse [No.10 located in fuse block (J/B)].
- Harness for open or short between memory indicator and fuse.

2. CHECK MEMORY INDICATOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit and seat memory switch connector.

3. Check continuity between automatic drive positioner control unit harness connector and seat memory switch harness connector.

Automatic drive po	ositioner control unit	Seat memory switch Connector Terminal		Continuity
Connector	Terminal			Continuity
M51	12	D5	6	Existed
ND I	13	05	7	Existed

4. Check continuity between automatic drive positioner control unit harness connector and ground.

	Automatic drive po	sitioner control unit		Continuity	
-	Connector	Terminal	Ground		
-	M51	12	Ground	Not existed	
	10131	13		NUL EXISTED	

< DTC	/CIRCUIT DIAGNOSIS >	
	nspection result normal?	
YES NO	>> Replace seat memory switch. Refer to <u>ADP-229, "Removal and Installation"</u> . >> Repair or replace harness.	A
		В
		С
		D
		E
		F
		G
		Н
		I
		ADP
		K
		L
		Μ
		Ν
		0

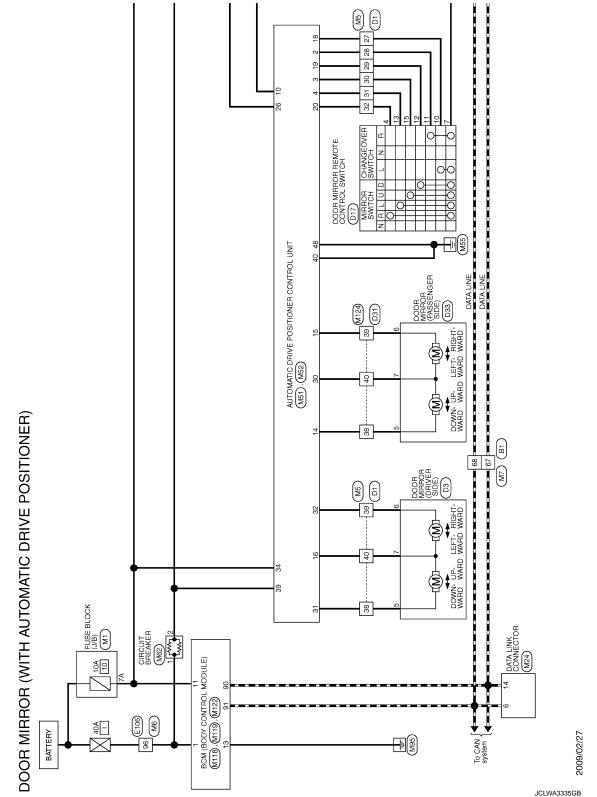
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< DTC/CIRCUIT DIAGNOSIS >

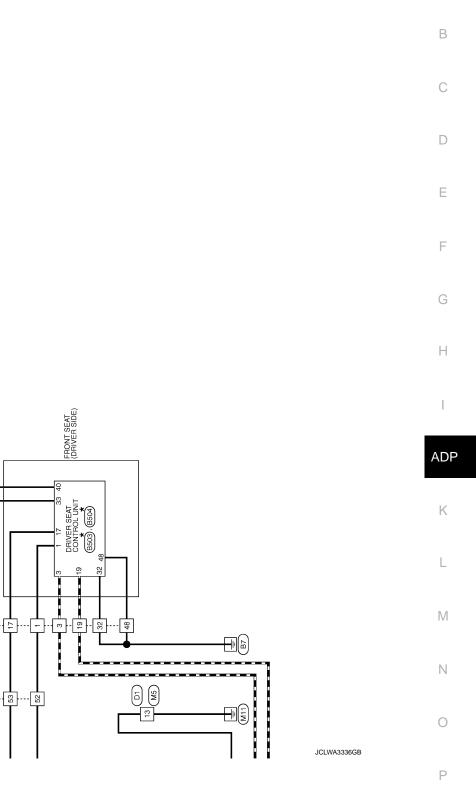
DOOR MIRROR SYSTEM

Wiring Diagram - DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER) -

INFOID:000000005141653



< DTC/CIRCUIT DIAGNOSIS >



★ : This connector is not shown in "Harness Layout".

B502

E B

(iii)

LW LW 33

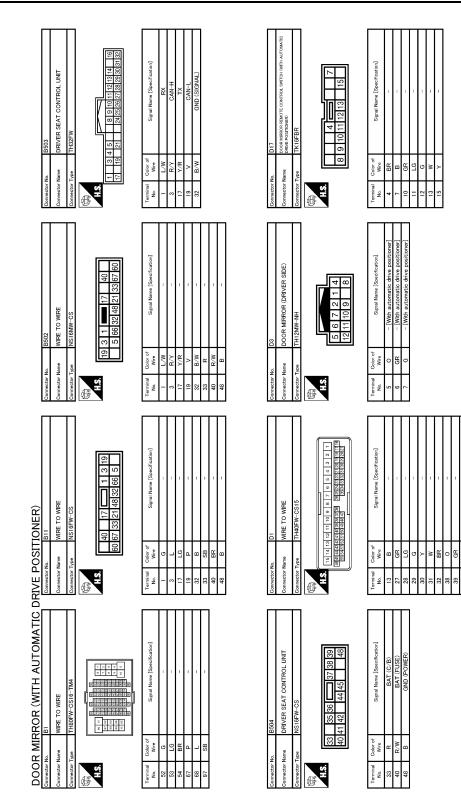
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< DTC/CIRCUIT DIAGNOSIS >

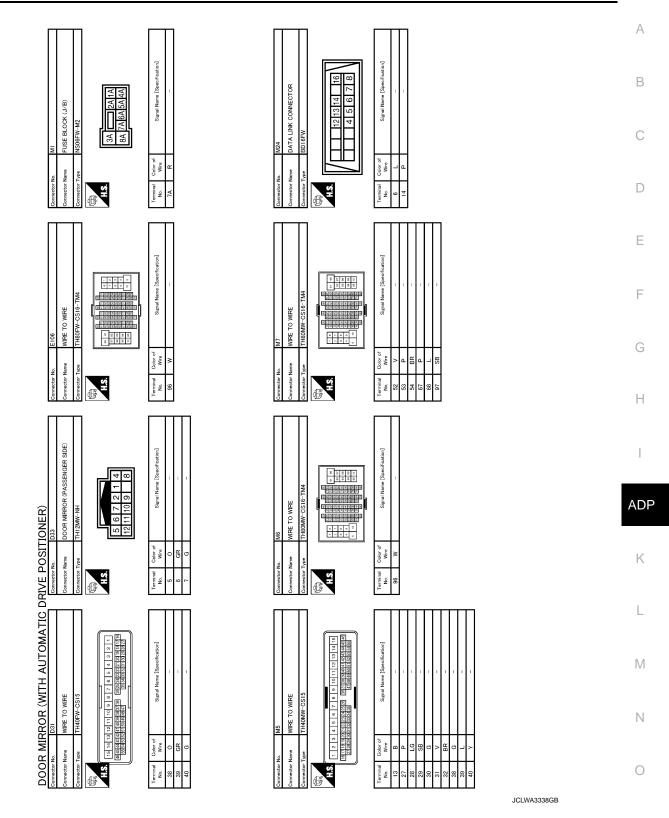


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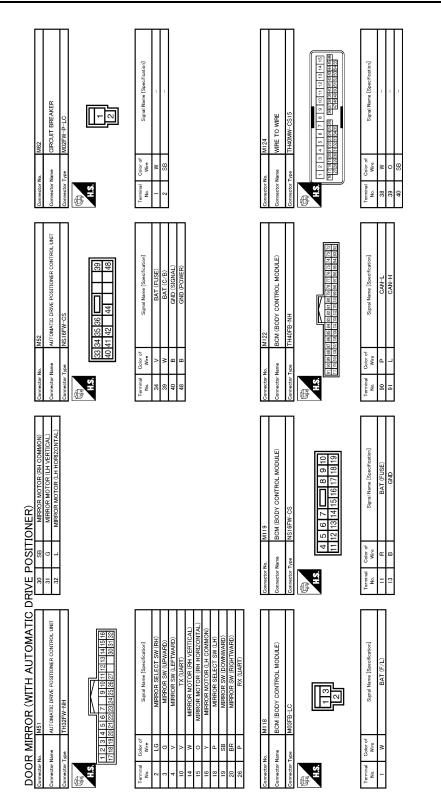
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< DTC/CIRCUIT DIAGNOSIS >



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< DTC/CIRCUIT DIAGNOSIS >



JCLWA3339GB

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER)

Reference Value

INFOID:000000005141654 В

А

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condit	ion	Value/Status	
SET SW	Set switch	Push	ON	
SET SW	Set Switch	Release	OFF	
MEMORY SW1	Momory quitch 1	Push	ON	
WENORT SWI	Memory switch 1	Release	OFF	
MEMORY SW2	Momory switch 2	Push	ON	
WEWORT SW2	Memory switch 2	Release	OFF	
SLIDE SW-FR	Sliding switch (front)	Operate	ON	
SLIDE SW-FR	Silding Switch (nont)	Release	OFF	
SLIDE SW-RR	Cliding owitch (rear)	Operate	ON	
SLIDE SW-RR	Sliding switch (rear)	Release	OFF	
	Declining exitat (frage)	Operate	ON	
RECLN SW-FR	Reclining switch (front)	Release	OFF	
	Declinic	Operate	ON	
RECLN SW-RR	Reclining switch (rear)	Release	OFF	
		Operate	ON	
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF	
		Operate	ON	F
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF	
		Operate	ON	
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF	
		Operate	ON	
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF	
		Up	ON	
MIR CON SW-UP	Mirror switch	Other than above	OFF	
		Down	ON	
MIR CON SW-DN	Mirror switch	Other than above	OFF	
		Right	ON	
MIR CON SW-RH	Mirror switch	Other than above	OFF	
		Left	ON	
MIR CON SW-LH	Mirror switch	Other than above	OFF	
		Right	ON	
MIR CHNG SW-R	Changeover switch	Other than above	OFF	
		Left	ON	
MIR CHNG SW-L	Changeover switch	Other than above	OFF	
		Up	ON	
FILT SW-UP	Tilt switch	Other than above	OFF	
		Down	ON	
TILT SW-DOWN	Tilt switch	Other than above	OFF	

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

Monitor Item	Con	dition	Value/Status
TELESCO SW-FR	Telescopic switch	Forward	ON
TELESCO SW-FR		Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
TEELSOO SW-KK		Other than above	OFF
FORWARD SW	Seat back	Folded down	ON
I ORWARD SW	Seal Dack	Other than above	OFF
WALK-IN SW	Power walk-in switch	Pressed	ON
WALK-IN OW		Other than above	OFF
FWD LIMIT SW	Seat sliding	Front edge	ON
	Seat siding	Other than above	OFF
SEAT BELT SW	Seat belt	Fastened	ON
SEAT BEET SW	Seat beit	Other than above	OFF
DETENT SW ^{*1}	A/T selector lever	P position	OFF
DETENT SW	A/I Selector level	Other than above	ON
	Parking brake	Applied	ON
PARK BRAKE SW ^{*2}	Parking brake	Release	OFF
STARTER SW	Ignition position	Cranking	ON
STARTER SW		Other than above	OFF
		Forward	The numeral value decreases *3
SLIDE PULSE	Seat sliding	Backward	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
		Forward	The numeral value decreases *3
RECLN PULSE	Seat reclining	Backward	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
		Up	The numeral value decreases *3
LIFT FR PULSE	Seat lifter (front)	Down	The numeral value increases *3
		Other than above	No change to numeral value*3
		Up	The numeral value decreases *3
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
MIR/SEN RH U-D	Door mirror (passenger s	ide)	Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger s	ide)	Change between 3.4 (close to left edge) 0.6 (close to right edge)
MIR/SEN LH U-D	Door mirror (driver side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN LH R-L	Door mirror (driver side)		Change between 0.6 (close to left edge) 3.4 (close to right edge)
TILT SEN	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)
TELESCO SEN	Telescopic position		Change between 3.4 (close to top) 0.8 (close to bottom)

^{*1}: A/T model

*2: M/T model

*3: The value at the position attained when the battery is connected is regarded as 32768.

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER)

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT A 1 2 3 4 5 6 7 8 9 101111213141516 33343536 373839 171819202122232425260272829303132 404142434445464748 MIA0192Z C

PHYSICAL VALUES

	nal No. color)	Description				Voltage (V)
+	-	Signal name	Input/ Out- put	Con	lition (Approx)	
1 L/W	Ground	UART communica- tion (RX)	Input	Ignition switch ON		2mSec/div
3 R/Y	—	CAN-H		-	_	_
4		Sliding limit switch		Seat sliding front e		0
O/B	Ground	signal	Input	Seat switch & pow pressed	er walk-in switch is	5
5	Ground	Seat belt buckle switch signal (driv-	Input	Seat belt fastened pressed	& seat switch	5
L		er side)		Other than above		0
8	Ground	Parking brake	Input	Parking brake	Applied	0
L/Y	Ciouna	switch signal	input		Release	Battery voltage
9 W/G	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div 10mSec/div 2V/div JMJIA0119ZZ
					Stop	0 or 5
10 P/B	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div
					Stop	0 or 5

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

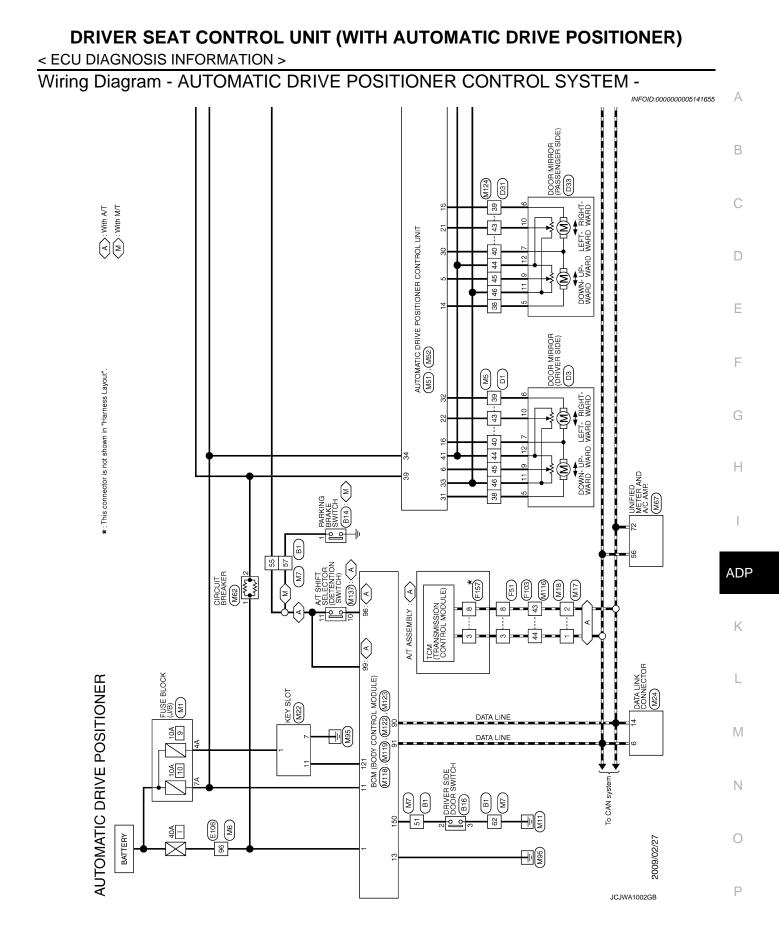
+ - Signal name Input/ Out- put Condition (A 11 (BR) Ground Sliding switch backward signal Input Sliding switch Operate (backward) Operate (backward) 12 (SB) Ground Reclining switch backward signal Input Reclining switch Operate (backward)	tage (V) vpprox) 0
11 (BR) Ground Sliding switch backward signal Input Sliding switch (backward) 12 (SB) Ground Reclining switch backward signal Input Reclining switch Operate (backward) 13 Ground Lifting switch (front) Input Lifting switch Operate (downward)	0
12 (SB) Ground Reclining switch backward signal Input Reclining switch Operate (backward) 13 Ground Lifting switch (front) Input Lifting switch Operate (downward)	
12 (SB) Ground Reclining switch backward signal Input Reclining switch (backward) 13 Ground Lifting switch (front) Lifting switch Operate (downward)	ery voltage
13 Cround Lifting switch (front) Lifting switch Operate (downward)	0
13 Cround Lifting switch (front) Input Lifting switch (downward)	ery voltage
	0
	ery voltage
14 (GB) Ground Lifting switch (rear) downward signal Input Lifting switch (rear) Operate (downward)	0
	ery voltage
16 (O)GroundSensor power sup- plyOut- put—Batter	ery voltage
17 (Y/R) Ground UART communica- tion (TX) Out- put Ignition switch ON Ignition switch ON	Sec/div
19 (V) — CAN-L — —	_
P position	0
21 (L/Y) Ground Detention switch switch Input A/T selector le- ver Except P position 20ms	Sec/div
24 (R) Ground Sliding sensor sig- nal Input Seat sliding Operate Operate	Sec/div
Stop (0 or 5
25 (Y/B) Ground Lifting sensor (front) signal Input Seat lifting (front) Operate	Sec/div
Stop (0 or 5

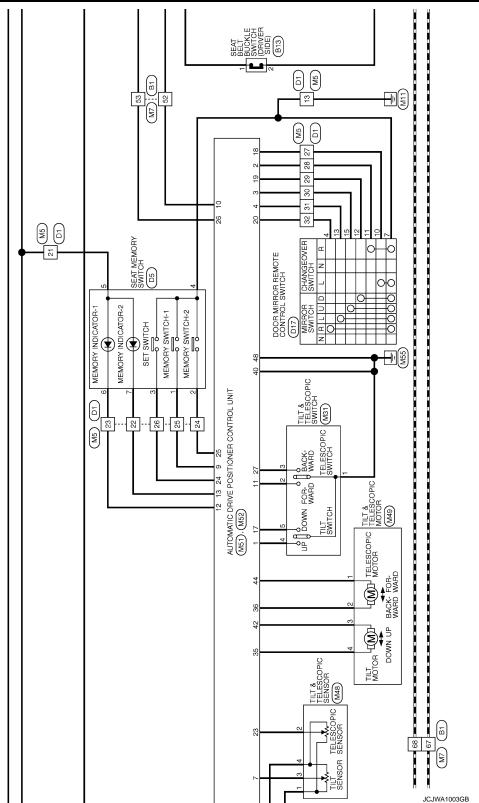
DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description				
+	-	Signal name	Input/ Out- put	Condition		Voltage (V) (Approx)
26	Ground	Sliding switch for-	Input	Sliding switch	Operate (forward)	0
(Y)		ward signal	•	U	Release	Battery voltage
27 (R/G)	Ground	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
(100)		Iorward Signal			Release	Battery voltage
28 (W/B)	Ground	Lifting switch (front) upward signal	Input	Seat lifting switch (front)	Operate (upward)	0
(11,2)		apwara signar		(nont)	Release	Battery voltage
29 (P/L)	Ground	Lifting switch (rear) upward signal	Input	Seat lifting switch (rear)	Operate (upward)	0
(· / -)		spinara orginar		. ,	Release	Battery voltage
30	Ground	Power walk-in	Input	Power walk-in	Pressed	0
(P)		switch signal	- F wi	switch	Other than above	Battery voltage
31 (GR)	Ground	Sensor ground	_	_		0
32 (B/W)	Ground	Ground (signal)	_	_		0
33 (R)	Ground	Power source (C/B)	Input	_		Battery voltage
35 (W/R)	Ground	Sliding motor for- ward output	Out- put	Seat sliding	Operate (forward)	Battery voltage
()			P ***		Release	0
36 (G/Y)	Ground	Reclining motor for- ward output signal	Out- put	Seat reclining	Operate (forward)	Battery voltage
(0,1)			P		Release	0
37 (G/W)	Ground	Lifting motor (front) downward output	Out- put	Seat lifting (front)	Operate (downward)	Battery voltage
· · /					Stop	0
38 (L/Y)	Ground	Lifting motor (rear) upward output	Out- put	Seat lifting (rear)	Operate (upward)	Battery voltage
			1.54		Stop	0
39 (R/B)	Ground	Lifting motor (rear) downward output	Out- put	Seat lifting (rear)	Operate (downward)	Battery voltage
· /		-			Stop	0
40 (R/W)	Ground	Power source (Fuse)	Input	-	_	Battery voltage
				Seat back is folder walk-in switch pres	d down and power ssed	0
41 (Y/G)	Ground	Forward switch sig- nal	Input	Seat back is fold up and seat reclin- ing is operation		battery voltage
				Seat back is fold u in switch is presse	ip and power walk- d	5
42	Ground	Sliding motor back-	Out-	Seat sliding	Operate (backward)	Battery voltage
(W)		ward output	put	-	Stop	0

DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description					
+	-	Signal name	Input/ Out- put	Cond	dition	Voltage (V) (Approx)	
44 (P)	Ground	Reclining motor	Out-	Out- put Seat reclining	Operate (backward)	Battery voltage	
(P)		backward output	put		Stop	0	
45 (L/R)	Ground	Lifting motor (front)	Out-	Seat lifting (front)	Operate (upward)	Battery voltage	
(L/K)		upward output	put		Stop	0	
48 (B)	Ground	Ground (power)	_			0	





DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

<u>) 33</u> B502 B611 B612 [<u>-</u> (%) (8) 38 ŝ 40 Beri B612 0 FOR- BACK-WARD WARD RECLINING MOTOR RECLINING \$ POWER SEAT SWITCH B510 FOR-WARD B611 B612 8 [8] SLIDING BACKjoz ⊑ (S) 44 4 DRIVER SEAT CONTROL UNIT *: This connector is not shown in "Harness Layout". LIFTING SWITCH (REAR) ٩ 88 LIFTING MOTO (REAR) 0 B504 SENSO (REAR) FRONT SEAT (DRIVER SIDE) ç BGI B529 ш Ч LIFTING SWITCH (FRONT) B503, С B612 \$ BACK- FOR-WARD WARD RECLINING SWITCH LIFTING MOTO (FRONT) LIFTING SENSOF (FRONT 52 EORWARD SWITCH (B512) ((B527) 37 37 POWER WALK-IN SWITCH B513 B611 B612 (%) 30 S 21: A B612 8: M [◄] 8 **-**[≥ B611 SLIDING SWITCH B514 8 32 <u>_</u> **B**502 Ē 97 54 21 1 <u>မ</u> က စု 48 g

Revision: 2010 March

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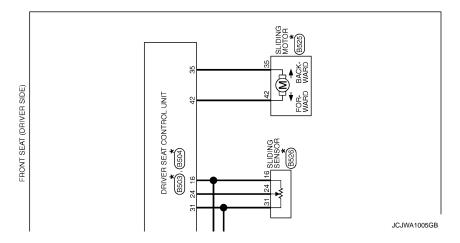
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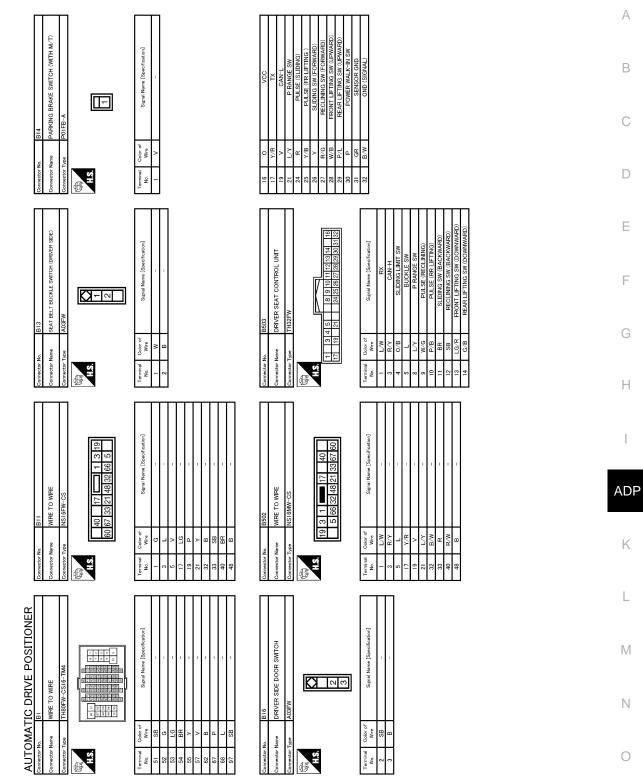
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DRIVER SEAT CONTROL UNIT (WITH AUTOMATIC DRIVE POSITIONER) < ECU DIAGNOSIS INFORMATION >

 \bigstar : This connector is not shown in "Harness Layout".

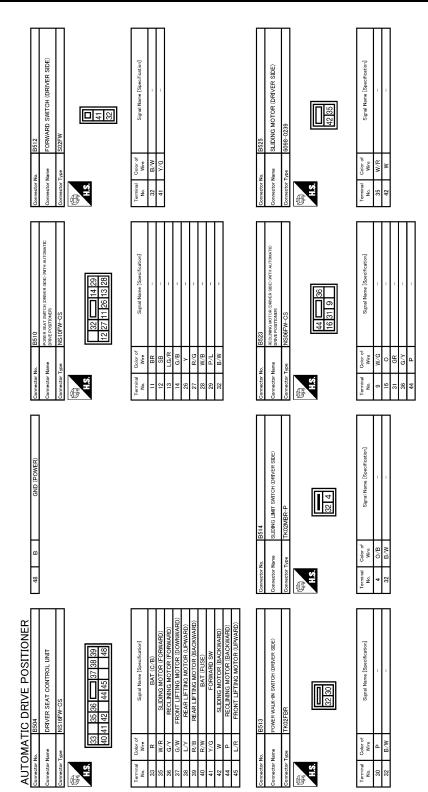


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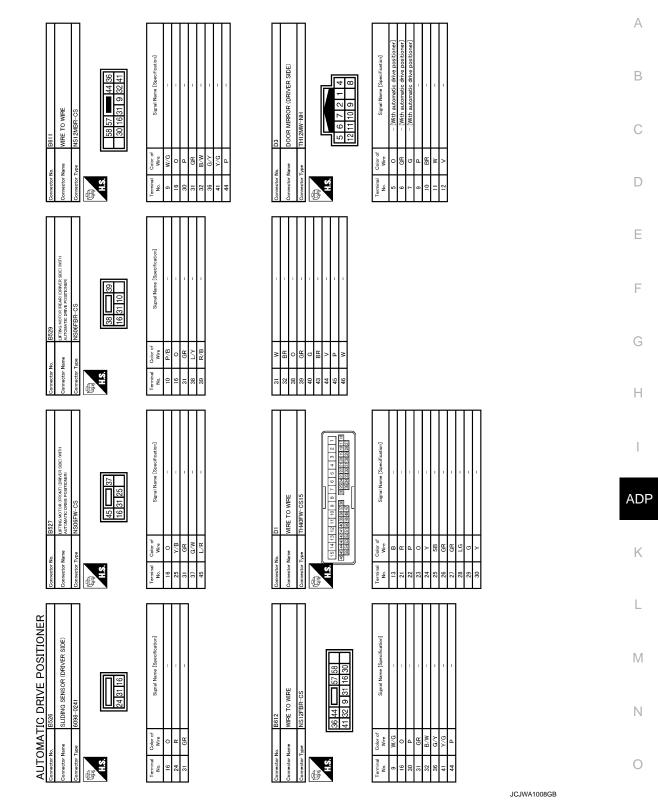
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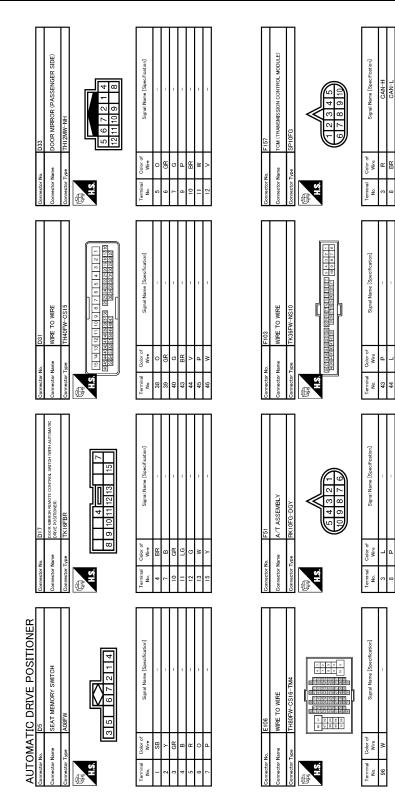


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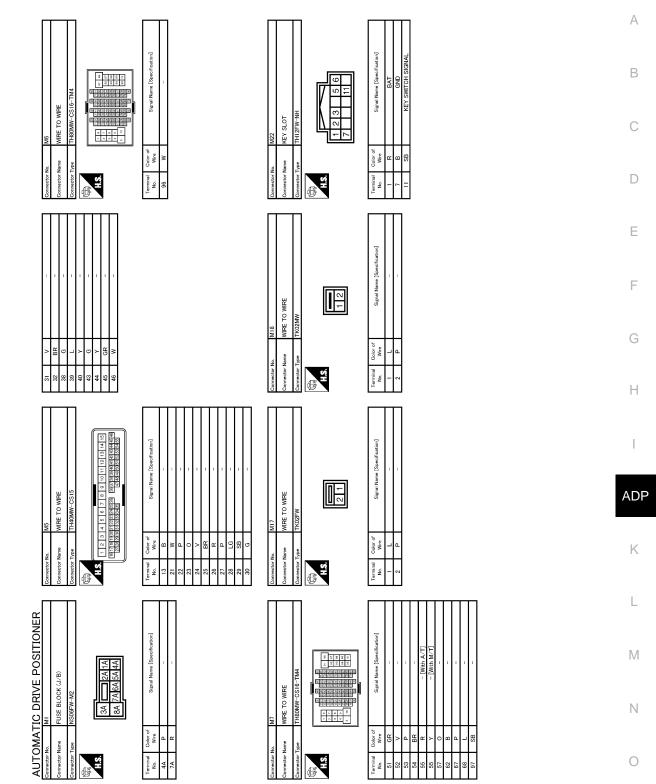


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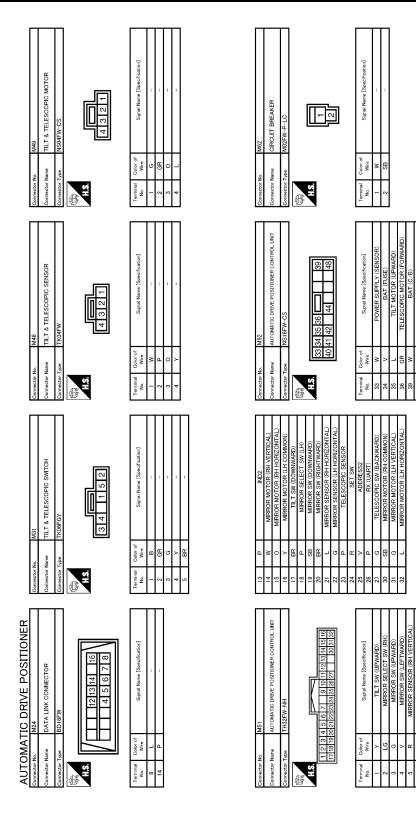
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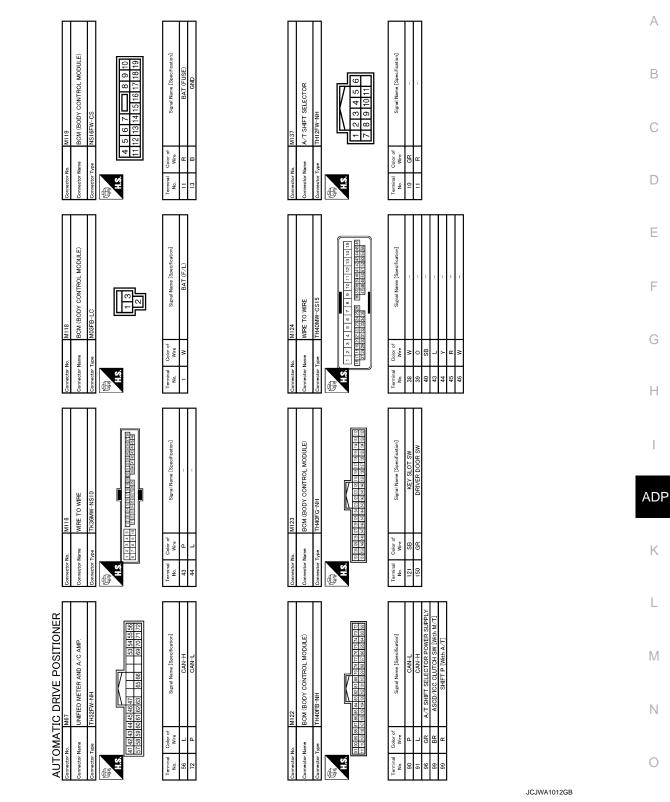
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< ECU DIAGNOSIS INFORMATION >



Fail Safe

The fail-safe mode may be activated if the following symptoms are observed.

INFOID:000000005141656

< ECU DIAGNOSIS INFORMATION >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication*1	U1000	With ADP: <u>ADP-48</u>
	CAN communication"	01000	Without ADP: <u>ADP-48</u>
Only manual functions operate normally.	Tilt sensor* ¹	B2118	With ADP: <u>ADP-53</u>
	Tilt sensor"	DZIIO	Without ADP: <u>ADP-53</u>
	Telescopic sensor	B2119	<u>ADP-56</u>
	Detent switch	B2126	<u>ADP-59</u>
	Parking brake switch	B2127	<u>ADP-61</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<u>ADP-63</u>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-49</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-51</u>

*1: Driver seat without automatic driver positioner system display only "U1000 CAN COMM CIRCUIT" and "B2112 SEAT SLIDE".

DTC Index

INFOID:000000005141657

CONSULT-III	Tim	ing ^{*1}			
display	Current mal- function function		Item	Reference page	
CAN COMM CIRCUIT*2	0	1-39	CAN communication	With ADP: ADP-48	
[U1000]	0	1-39	CAN communication	Without ADP: <u>ADP-48</u>	
SEAT SLIDE*2	0	1-39		With ADP: <u>ADP-49</u>	
[B2112]	0	1-39	Seat slide motor output	Without ADP: <u>ADP-49</u>	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<u>ADP-51</u>	
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	<u>ADP-53</u>	
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	<u>ADP-56</u>	
DETENT SW* ² [B2126]	0	1-39	Detention switch condition	<u>ADP-59</u>	
PARKING BRAKE [B2127]	0	1-39	Parking brake switch condition	<u>ADP-61</u>	
UART COMM [B2128]	0	1-39	UART communication	<u>ADP-63</u>	

*1.

• 0: Current malfunction is present

• 1-39: Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is detected again, the normal operation is resumed and the ignition switch is turned from OFF to ON.

*2: Driver seat without automatic driver positioner system display only "U1000 CAN COMM CIRCUIT" and "B2112 SEAT SLIDE".

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000005141658

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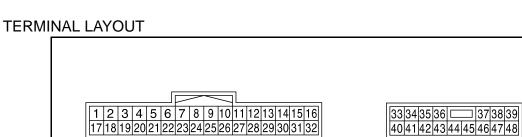
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PHYSICAL VALUES

	inal No. e color)	r) Description Condition		Voltage (V)	F		
+	-	Signal name	Input/ Output	Condition		(Approx.)	
1	Cround	Tilt quitch upword gignel	Innut	Tilt owitch	Operate (upward)	0	
(Y)	Ground	Tilt switch upward signal	Input	Tilt switch	Other than above	5	F
2		Change aver awitch DU		Changeover	RH	0	
2 (LG)	Ground	Changeover switch RH signal	Input	Changeover switch position	Neutral or LH	5	
3	Ground	Mirror switch upward sig-	Input	Mirror switch	Operated (upward)	0	A
(G)	Cround	nal	input	WIND SWICH	Other than above	5	
4	Ground	Mirror switch leftward sig-	Input	Operated (leftward)		0	k
(V)	Ground	nal	input	nput Mirror switch	Other than above	5	L
5 (R)	Ground	Door mirror sensor (RH) upward/downward signal	Input	Mirror face (door n	nirror RH)	Change between 3.4 (close to peak) 0.6 (close to valley)	
6 (GR)	Ground	Door mirror sensor (LH) upward/downward signal	Input	Mirror face (door n	nirror LH)	Change between 3.4 (close to peak) 0.6 (close to valley)	N
7 (O)	Ground	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.8 (close to bottom)	Ν
9					Press	0	
9 (BR)	Ground	Memory switch 1 signal	Input	Memory switch 1	Other than above	5	C
10 (V)	Ground	UART communication (TX)	Output	Ignition switch ON		2mSec/div	F

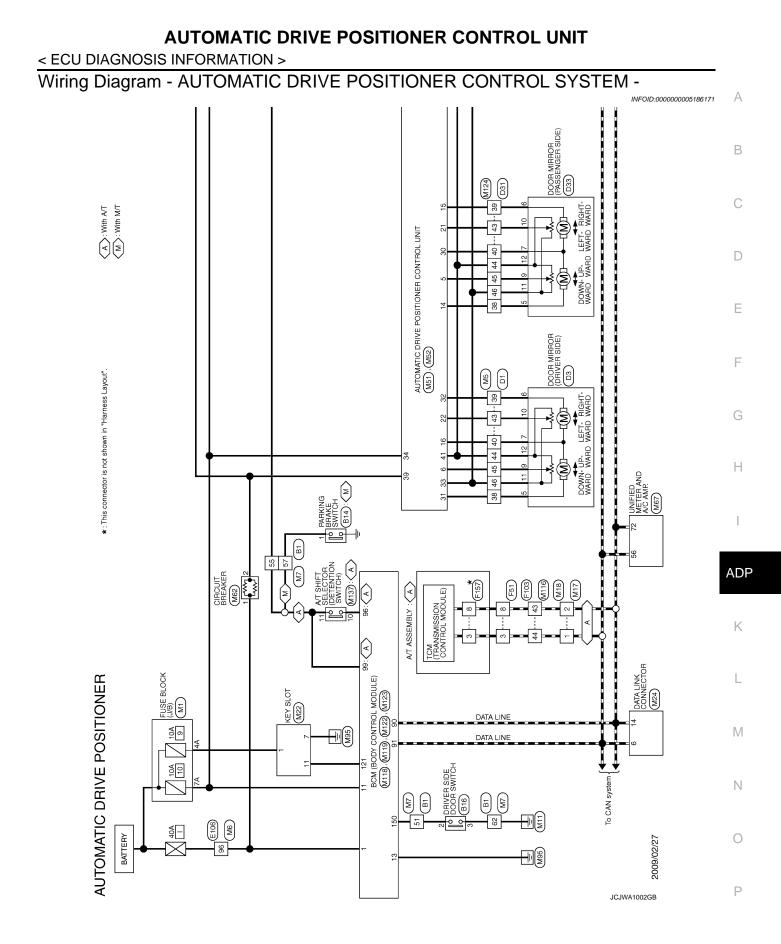
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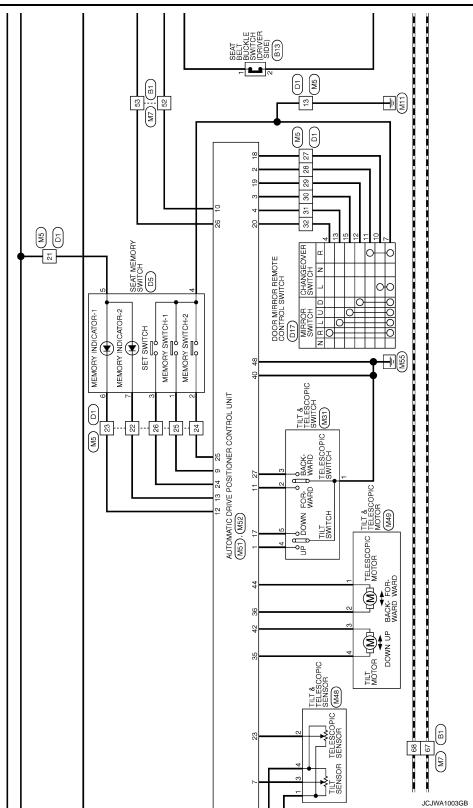
Terminal No. (Wire color)		Description		Condition		Voltage (V)							
+	-	Signal name	Input/ Output	Conditio		(Approx.)							
11 (GR)	Ground	Telescopic switch forward	Input	Telescopic switch	Operate (forward)	0							
(GR)		signal			Other than above	5							
12	Ground	Memory indictor 1 signal	Output	Memory indictor 1	Illuminate Other than	1							
(O)					above	Battery voltage							
13 (P)	Ground	Memory indictor 2 signal	Output	Memory indictor 2	Illuminate Other than	1							
(୮)					above	Battery voltage							
14	Ground	Door mirror motor (RH)	Output	Door mirror RH	Operate (upward)	Battery voltage							
(W)	Creana	upward output	e arp ar		Other than above	0							
15	Ground	Door mirror motor (RH)	Output	Door mirror RH	Operate (leftward)	Battery voltage							
(O)	Cround	leftward output	Output		Other than above	0							
		Door mirror motor (LH)						Operate (down- ward)	Battery voltage				
16	Ground	downward output	Output	It Door mirror (LH)	Other than above	0							
(Y)		Door mirror motor (LH)	-									Operate (rightward)	Battery voltage
		rightward output					Other than above	0					
17 (BR)	Ground	Tilt switch downward sig- nal	Input	Tilt switch	Operate (down- ward)	0							
		11Cl			Other than above	5							
18	Ground	Changeover switch LH	Input	Changeover	LH	0							
(P)	Glound	signal	input	switch position	Neutral or RH	5							
19 (SB)	Ground	Mirror switch downward signal	Input	Mirror switch	Operate (down- ward)	0							
(36)		Signai			Other than above	5							
20	Ground	Mirror switch rightward	Innut	Mirror switch	Operate (rightward)	0							
(BR)	Ground	signal	Input		Other than above	5							
21 (L)	Ground	Door mirror sensor (RH) leftward/rightward signal	Input	Door mirror RH pos	sition	Change between 3.4 (close to left edge) 0.6 (close to right edge)							
22 (G)	Ground	Door mirror sensor (LH) leftward/rightward signal	Input	Door mirror LH pos	sition	Change between 0.6 (close to left edge) 3.4 (close to right edge)							
23 (P)	Ground	Telescopic sensor signal	Input	Telescopic position		Change between 0.8 (close to top) 4.4 (close to bottom)							

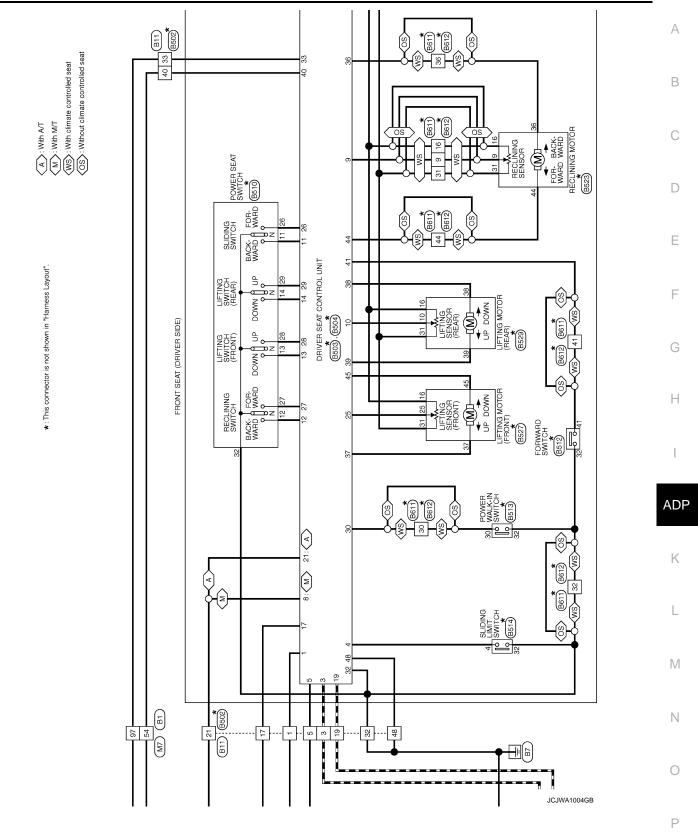
Revision: 2010 March

	nal No. e color)	Description		- Condition		Voltage (V)	A
+	-	Signal name	Input/ Output			(Approx.)	
24 (R)	Ground	Set switch signal	Input	Set switch	Press Other than above	0 5	B
25 (LG)	Ground	Memory switch 2 signal	Input	Memory switch 2	Press Other than above	0 5	С
26 (P)	Ground	UART communication (RX)	Input	Ignition switch ON		10mSec/div	- D E F
27		Telescopic switch back-			Operate (backward)	0	_
(G)	Ground	ward signal	Input	Input Telescopic switch		5	- G
		Door mirror motor (RH)			Operate (down- ward)	Battery voltage	Н
30	Ground	downward output und Door mirror motor (RH) rightward output	Output	Door mirror (RH)	Other than above	0	-
(SB)					Operate (rightward)	Battery voltage	_
					Other than above	0	ADF
31		Door mirror motor (LH)		5 . (11)	Operate (upward)	Battery voltage	K
(G)	Ground	upward output	Output	Door mirror (LH)	Other than above	0	_
32		Door mirror motor (LH)	0.1.1		Operate (leftward)	Battery voltage	L
(L)	Ground	leftward output	Output	Door mirror (LH)	Other than above	0	M
33 (W)	Ground	Sensor power supply	Input	_		5	_
34 (V)	Ground	Power source (Fuse)	Input	_		Battery voltage	N
35		-	0.1.1		Operate (upward)	Battery voltage	0
(L)	Ground	Tilt motor upward output	Output	Steering tilt	Other than above	0	_
36		Telescopic motor forward		Steering telescop-	Operate (forward)	Battery voltage	Ρ
(GR)	Ground	output signal	Output	ic	Other than above	0	_
39 (W)	Ground	Power source (C/B)	Input	_	I	Battery voltage	_
40 (B)	Ground	Ground	_	_		0	_

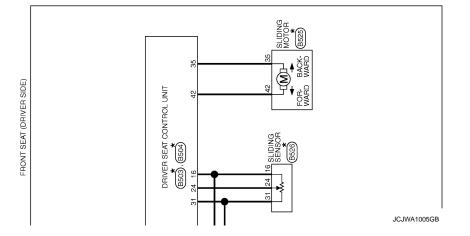
	nal No. color)	Description		Condition		Voltage (V)
+	_	Signal name	Input/ Output	Condition		(Approx.)
41 (Y)	Ground	Sensor ground	_	—		0
42 (O)	Ground	Tilt motor downward out- put	Output	t Steering tilt	Operate (down- ward)	Battery voltage
(0)					Other than above	0
44	Ground	Telescopic motor back-	Output	Steering telescop-	Operate (backward)	Battery voltage
(G)	Ground	ward output	Output	ic	Other than above	0
48 (B)	Ground	Ground	_			0



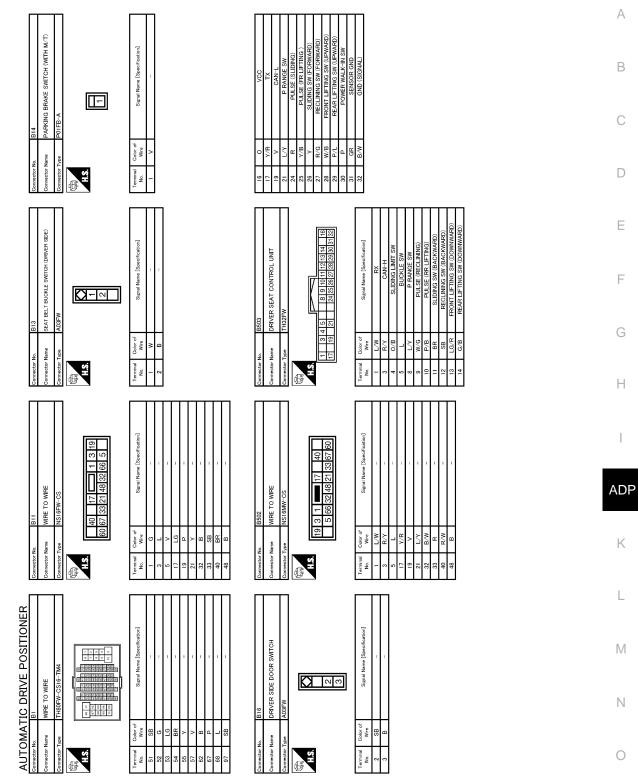




 $\pmb{\star}$: This connector is not shown in "Harness Layout".

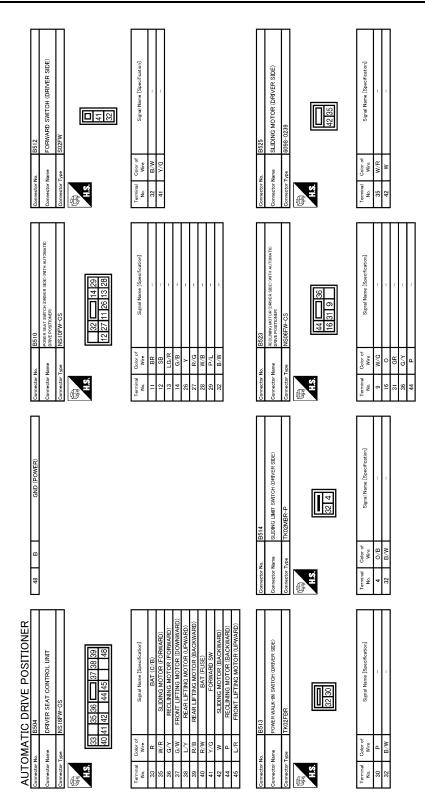


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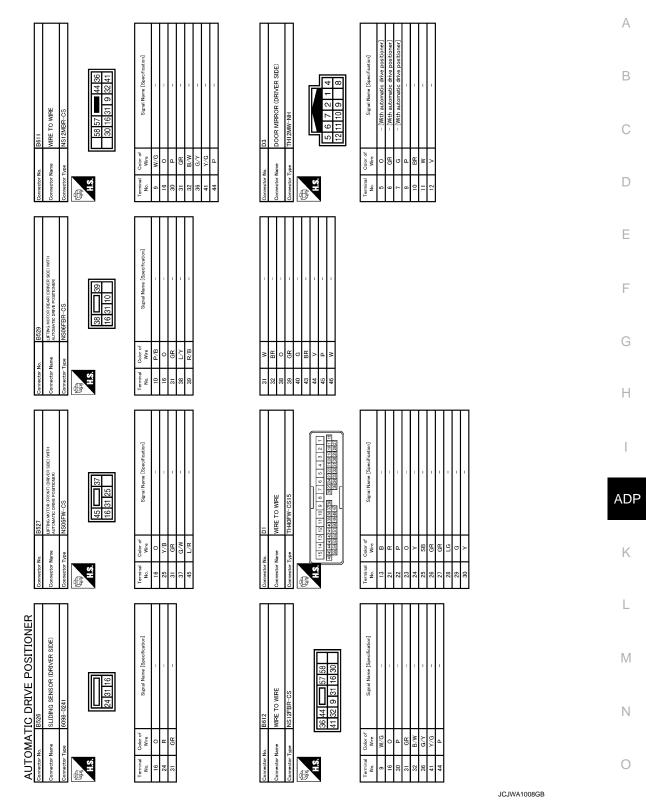
JCJWA1006GB

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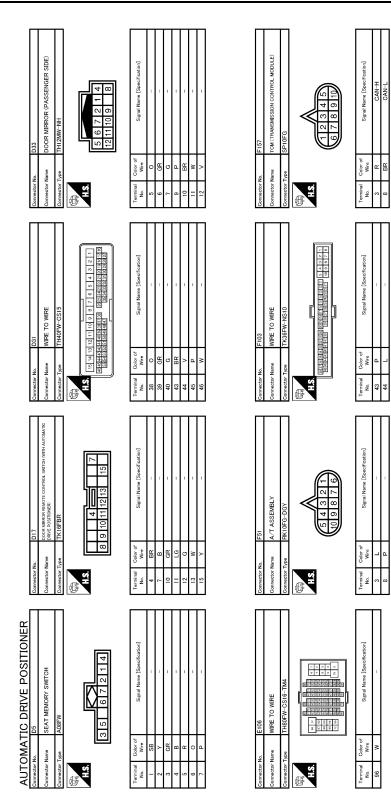


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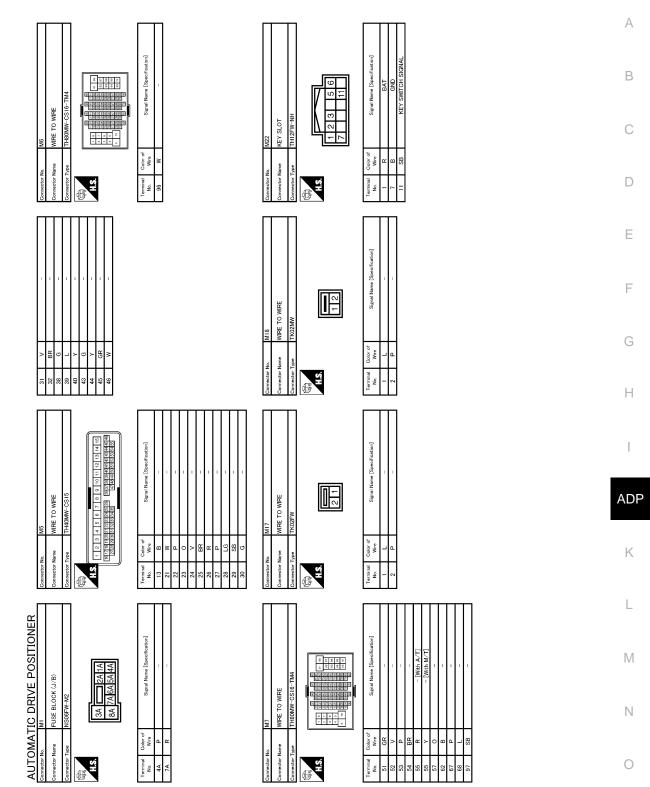


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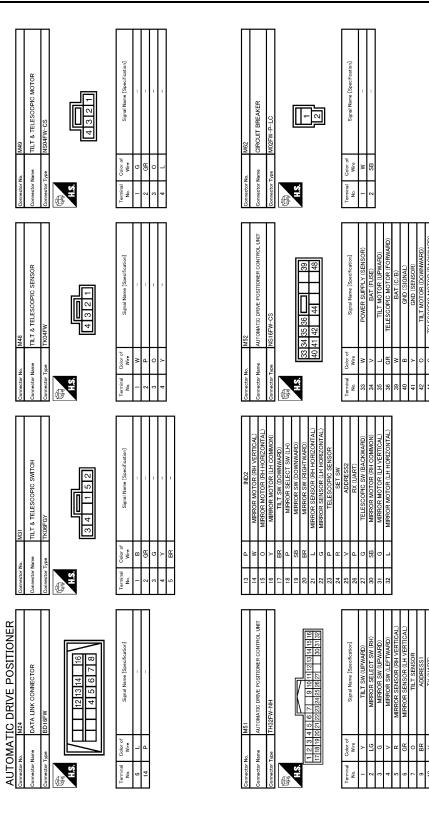
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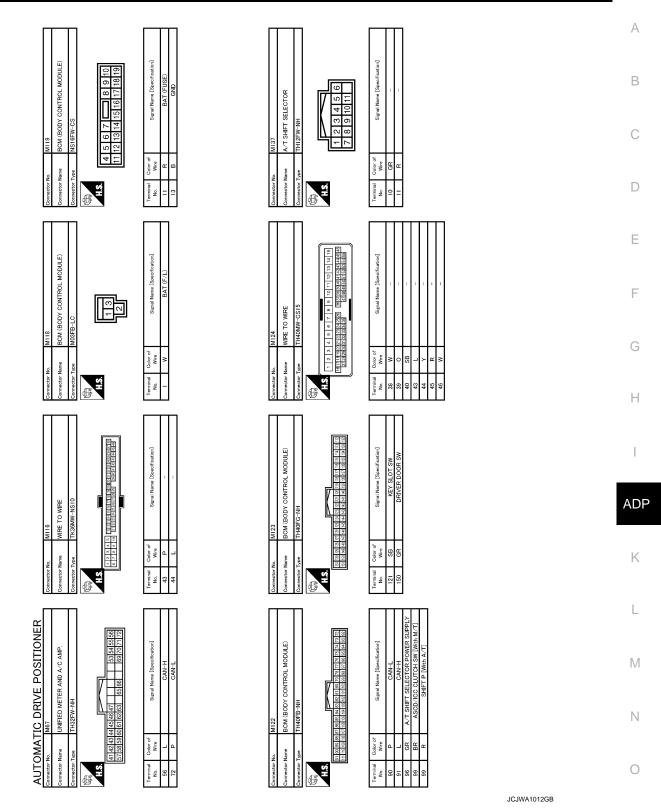
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Вc

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< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000005182676

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
	Other than front wiper switch INT/AUTO	Off
FR WIPER INT	Front wiper switch INT/AUTO	On
	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial posi- tion
	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
DOOK 3W-DK	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off	
	Other than power door lock switch LOCK	Off	
CDL LOCK SW	Power door lock switch LOCK	On	
	Off		
CDL UNLOCK SW	Power door lock switch UNLOCK	On	
	Other than driver door key cylinder LOCK position	Off	
KEY CYL LK-SW	Driver door key cylinder LOCK position	On	
	Other than driver door key cylinder UNLOCK position	Off	
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On	
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	
	Hazard switch is OFF	Off	_
HAZARD SW	Hazard switch is ON	On	
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off	
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off	
	Trunk lid opener cancel switch ON	On	
	Trunk lid opener switch OFF	Off	
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	On	
	Trunk lid closed	Off	
TRNK/HAT MNTR	Trunk lid opened	On	
	LOCK button of the Intelligent Key is not pressed	Off	
RRE-LOUR	LOCK button of the Intelligent Key is pressed	On	
	UNLOCK button of the Intelligent Key is not pressed	Off	
RRE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On	
	TRUNK OPEN button of the Intelligent Key is not pressed	Off	
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On	
	PANIC button of the Intelligent Key is not pressed	Off	
AAZARD SW REAR DEF SW WL WASH SW R CANCEL SW R CANCEL SW R/BD OPEN SW R/BD OPEN SW RKE-DOCK RKE-LOCK RKE-LOCK RKE-LOCK RKE-LOCK RKE-LOCK RKE-PANIC RKE-PANIC RKE-PANIC RKE-PANIC RKE-PANIC RKE-PANIC RKE-PANIC RKE-MODE CHG RKE-MODE CHG RKE-MODE CHG	PANIC button of the Intelligent Key is pressed	On	
	UNLOCK button of the Intelligent Key is not pressed	Off	_
HAZARD SW REAR DEF SW H/L WASH SW TR CANCEL SW TR/BD OPEN SW TR/BD OPEN SW TRNK/HAT MNTR RKE-LOCK RKE-UNLOCK RKE-TR/BD RKE-PANIC RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On	
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off	
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On	
	Bright outside of the vehicle	Close to 5 V	
JE HUAL SENSUK	Dark outside of the vehicle	Close to 0 V	
	Driver door request switch is not pressed	Off	
REY SW -DK	Driver door request switch is pressed	On	
	Passenger door request switch is not pressed	Off	
KEQ SW -AS	Passenger door request switch is pressed	On	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off	_

Revision: 2010 March

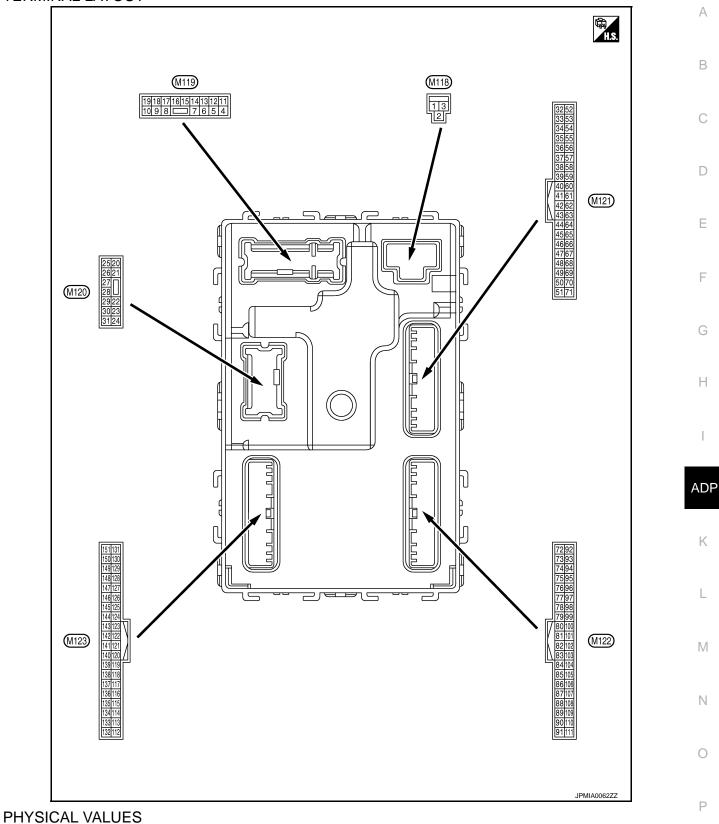
Monitor Item	Condition	Value/Status
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
F 0311 3W	On	
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
IGN RLTZ -F/D	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models)	Off
DETE/CANCL SW	Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models)	On
SET PN/N SW		Off
SFT PIN/IN SW	Selector lever in P or N position	On
Steering is unlocked		Off
S/L -LOCK	Steering is locked	On
	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
IGN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	 Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models) 	Off
SFT PN -IPDM	Selector lever in P or N position The clutch pedal is depressed	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

Monitor Item	Condition	Value/Status	_	
	Engine stopped	Stop	/	
ENGINE STATE	While the engine stalls	Stall		
ENGINE STATE	At engine cranking	Crank	-	
	Engine running	Run	•	
	Steering is unlocked	Off	•	
S/L LOCK-IPDM	Steering is locked	On	(
	Steering is locked	Off		
S/L UNLK-IPDM	Steering is unlocked	On	-	
	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off		
S/L RELAY-REQ	Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK	On		
VEH SPEED 1	While driving	Equivalent to speed- ometer reading	-	
VEH SPEED 2	While driving	Equivalent to speed- ometer reading	•	
	Driver door is locked	LOCK	(
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY		
	Driver door is unlocked	UNLOCK	•	
	Passenger door is locked	LOCK		
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY	•	
	Passenger door is unlocked	UNLOCK	•	
	Steering is locked	Reset	•	
ID OK FLAG	Steering is unlocked	Set		
	The engine start is prohibited	Reset	A	
PRMT ENG STRT	The engine start is permitted	Set	•	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	-	
	The Intelligent Key is not inserted into key slot	Off	•	
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On		
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key	. 1	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_	ſ	
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet		
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done	-	
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet	(
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done		
	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet	-	
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done		

Monitor Item	Condition	Value/Status	
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet	
CONFIRMIDZ	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done	
	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet	
CONFIRM ID1	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done	
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet	
1P 4	The ID of fourth Intelligent Key is registered to BCM	Done	
	The ID of third Intelligent Key is not registered to BCM	Yet	
TP 3	The ID of third Intelligent Key is registered to BCM	Done	
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet	
	The ID of second Intelligent Key is registered to BCM	Done	
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet	
TP 1	The ID of first Intelligent Key is registered to BCM	Done	
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	
ID REGST FL1	ID of front LH tire transmitter is registered	Done	
ID REGOT FLT	ID of front LH tire transmitter is not registered	Yet	
	ID of front RH tire transmitter is registered	Done	
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet	
	ID of rear RH tire transmitter is registered	Done	
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet	
	ID of rear LH tire transmitter is registered	Done	
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet	
	Tire pressure indicator OFF	Off	
WARNING LAMP	Tire pressure indicator ON	On	
	Tire pressure warning alarm is not sounding	Off	
BUZZER	Tire pressure warning alarm is sounding	On	

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



Terminal No. (Wire color)		Description				Value
(VVire +		Signal name	Input/ Output	Condition		(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (LG) G		Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
	Ground			Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (P)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Ac- tuator is not activated)	0 V
7	Crownd	Step lamp	Output	Step lamp	ON	0 V
(SB)	Ground				OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9	Cround	Driver door, fuel lid	Quitaut	Driver door,	UNLOCK (Actuator is activated)	12 V
(G)		Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V	
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position.
						10 0 2 ms JSNIA0010GB
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

	nal No. color)	Description			O and lititian	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	
					Turn signal switch OFF	6.5 V 0 V
18 (O)	Ground	Turn signal LH (Front)	Output	lgnition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s FKID0926E 6.5 V
19	Ground	Room lamp timer	Output	Interior room	OFF	12 V
(V)		control	Saiput	lamp	ON Turn signal switch OFF	0 V 0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 Fillo 15 10 10 10 10 10 10 10 10 10 10
23					OPEN (Trunk lid opener actuator is activated)	12 V
(Y)	Ground	Trunk lid open	Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V
					Turn signal switch OFF	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	
30	Ground	Trunk room lomo	Output	Trunk room	ON	6.5 V 0 V
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V

	nal No.	Description				Value
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 10 10 15 0 15 0 15 0 15 0 15 0 15
(SB)		()		UFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 s JMKIA0063GB
35	Ground	Trunk room antenna	Output	tput Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB
(V)		(+)			When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB
38	Ground	Rear bumper anten-	Output	When the trunk lid opener re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5
(B)	Siduid	na (–)		operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 0 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10

	nal No.	Description				Value	0
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
		Deschargeseter		When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	B C D
39 (W)	Ground	Rear bumper anten- na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 s JJKKIA0063GB	E
47	Crownd	Ignition relay (IPDM	Outrout	Invition outlob	OFF or ACC	12 V	G
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V	
50 (G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	H I ADF
					ON (Trunk lid is opened)	0 V	
				Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V	Κ
52	Ground	Starter relay control	Output	els)	When selector lever is not in P or N position	0 V	L
(SB)	Cround		ouput	Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage	
				els)	When the clutch pedal is not depressed	0 V	M
					ON (Pressed)	0 V	
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	N O P
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(G)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	

Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + _ Output 0 V Pressed 15 10 67 Trunk lid opener Trunk lid open-Ground Input (GR) switch er switch Ō Not pressed 10 ms JPMIA0011GB 11.8 V (V 15 10 When Intelligent Key is in 50 the passenger compartment 1 s JMKIA0062GB 72 Room antenna 2 (-) Ignition switch Ground Output (R) (Center console) OFF 15 10 When Intelligent Key is not in the passenger compartn ment 1 s JMKIA0063GB 15 10 When Intelligent Key is in ŏ the passenger compartment 1 s JMKIA0062GB 73 Room antenna 2 (+) Ignition switch Ground Output (G) (Center console) OFF 15 10 When Intelligent Key is not ñ in the passenger compartment 1 s

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

JMKIA0063GB

	nal No.	Description				Value	٨
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
74	0	Passenger door an-	0	When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15	B C D
(SB)	Ground	tenna (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	E
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H I
(BR)	Ground	tenna (+)	Output	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB	ADP K
76	Ground	Driver door antenna	Output	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB	M
(V)	Ground	()	Jouput	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	P

	nal No.	Description				Value
(vvire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
77	Ground	Driver door antenna	Output	When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s JMKIA0062GB
(LG)		(+)	Cutput	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB
(Y)		(Instrument panel)		^{ut} OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB
(BR)	Siduid	(Instrument panel)	Cuput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 0 1 s 0 JMKIA0063GB

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V
83	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	
(Y)	Ground	receiver communica- tion	Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V

Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + _ Output (V 15 10 5 All switches OFF Õ (Wiper volume dial 4) 2 ms JPMIA0041GB 1.4 V (V 15 iŏ Lighting switch HI 0 (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V 88 Combination switch Combination Ground Input (O) **INPUT 3** switch 15 10 Lighting switch 2ND n (Wiper volume dial 4) 2 ms JPMIA0037GB 1.3 V 15 Any of the conditions be-10 low with all switches OFF n • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 2 ms JPMIA0040GB 1.3 V Push-button ig-0 V Pressed 89 Push-button ignition Ground Input nition switch (BR) switch (Push switch) Not pressed Battery voltage (push switch) 90 Input/ Ground CAN-L (P) Output 91 Input/ CAN-H Ground (L) Output OFF 0 V (V 15 10 92 Key slot illumin Ground Key slot illumination Output Blinking (LG) nation 1 s JPMIA0015GB 6.5 V ON 12 V

BCM (BODY CONTROL MODULE)

	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
93	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(V)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Ground	Acc relay control	Output	Ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	0.00.00	tion No. 1		g.co.t	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)		tion No. 2		g	UNLOCK status	0 V
		Selector lever P posi-		Selector lever	P position	0 V
		tion switch			Any position other than P	12 V
99		ASCD clutch switch (M/T models without		ASCD clutch switch	OFF (Clutch pedal is de- pressed)	0 V
(R)* ¹ (BR)* ²	Ground	ICC)	Input		ON (Clutch pedal is not depressed)	12 V
()		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is de- pressed)	0 V
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 0 10 ms JDMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 10 ms JDMIA0016GB 1.0 V
102 (O)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC ON	0 V 12 V
103 (L)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch (12 V
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC ON	12 V 0 V

	nal No.	Description				Value
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	Turn signal switch RH	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

	nal No.	Description				Value	A
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2.ms JPMIA0041GB 1.4 V	B C D
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0038GB 1.3 V	E
(R)	Ground	INPUT 4	mput	switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	G H I
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	(V) 15 0 2 ms 1.3 V	ADI K

< ECU DIAGNOSIS INFORMATION >

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Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + _ Output (V) 15 10 5 Õ All switches OFF 2 ms JPMIA0041GB 1.4 V (V 15 10 5 õ Lighting switch PASS 2 ms JPMIA0037GB 1.3 V (V 15 10 Combination Combination switch 109 switch Ō Lighting switch 2ND Ground Input INPUT 2 (W) (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V (V 15 10 Front wiper switch INT/ n AUTO 2 ms JPMIA0038GB 1.3 V (V 15 10 5 ŏ Front wiper switch HI 2 ms JPMIA0040GB 1.3 V ON 0 V 110 Ground Hazard switch Input Hazard switch (G) ŏ OFF 10 ms JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					LOCK status	12 V
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 5 0 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
113 (O)	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(0)	(O) Ground			ON	When dark outside of the vehicle	Close to 0 V
114	Cround	Clutch interlock	Input	Clutch interlock OFF (Clutch pedal is not depressed)	0 V	
(R)	Ground	switch	Input	switch	ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
<u> </u>		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118		(Without ICC)		switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)	Ground	Stop lamp switch 2	Input		h OFF (Brake pedal is not ICC brake hold relay OFF	0 V
		(With ICC)		Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 10 10 10 10 10 11 10 10 11 10 10
					UNLOCK status (Unlock switch sensor ON)	0 V

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
121	Cround	Kou olot ouitab	lasut	When the Intellig	gent Key is inserted into key	12 V
(SB)	Ground	Key slot switch	Input	When the Intelligent Key is not inserted into key slot		0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)			•		ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 10 10 10 10 10 10 10 10 10 10
132 (V)	Ground	Power window switch and R.H.T. control unit communication	Input/ Output	Ignition switch C	DN	(V) 15 10 5 0 10 ms JPMIA0013GB 10.2 V
				Ignition switch C)FE or ACC	10.2 V
				. <u></u>	ON (Tail lamps OFF)	9.5 V
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level. (V) 15 10 5 0 JPMIA0159GB
					OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage 0 V
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V

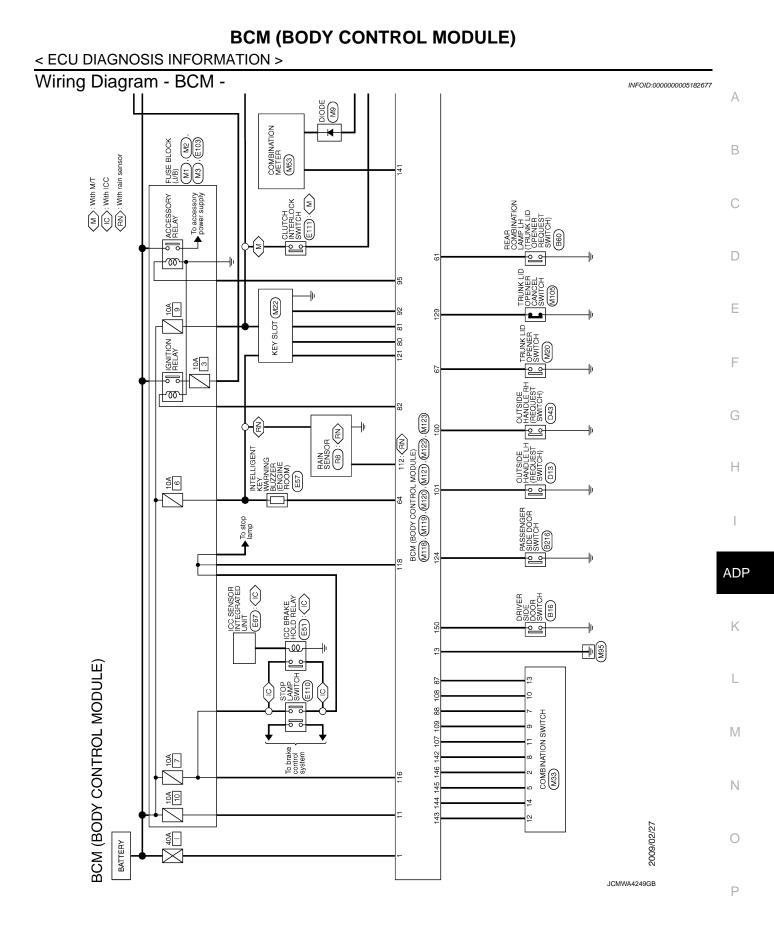
	nal No. color)	Description			0	Value
(vvire +		Signal name	Input/ Output		Condition	(Approx.)
		Dessions and service	Output		OFF	0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	ACC or ON	5.0 V
					Standby state	(V) 6 4 2 0 •••• 0.2s
139 (L)	Ground	Tire pressure receiv- er communication	Input/ Output	lgnition switch ON	When receiving the signal from the transmitter	(V) 6 4 2 0
140 (GR)	Ground	Selector lever P/N position (A/T models)	Input	Selector lever	P or N position Except P and N positions	0CC3880D 0CC3880D 12 V 0 V
					ON	0 V
141 (R)	Ground	Security indicator lamp	Output	Security indica- tor lamp	Blinking	(V) 15 10 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 10 10 10 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10
						11.3 V
					OFF	12 V
					All switches OFF	0 V
					Lighting switch 1ST	(V)
				Combination	Lighting switch HI	15
142 (BR)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper volume dial 4)	Lighting switch 2ND	
						JPMIA0031GB 10.7 V
					All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	(V)
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	15 10 2 ms JPMIA0032GB 10.7 V

< ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)		Description				Value							
+	-	Signal name	Input/ Output		Condition	(Approx.)							
					All switches OFF (Wiper volume dial 4)	0 V							
					Front washer switch ON (Wiper volume dial 4)	(V) 15							
144 (O)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	10 5 0 2 ms JPMIA0033GB 10.7 V							
					All switches OFF	0 V							
					Front wiper switch INT/ AUTO	(V)							
145		Combination switch		Combination switch	Front wiper switch LO								
(L)	Ground	OUTPUT 3	Output	(Wiper volume dial 4)		5 2.ms JPMIA0034GB 10.7 V							
					All switches OFF	0 V							
					Front fog lamp switch ON								
				Output	Output	Output	Output	Output	Output	Output	Combination	Lighting switch 2ND	(V) 15
146	Ground	Combination switch									Output	Output	switch
(SB)	Ground	OUTPUT 4	Output			0 2 ms JPMIA0035GB 10.7 V							
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V							
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 10 ms JPMIA0011GB 11.8 V							
					ON (Door open)	0 V							
151	Ground	Rear window defog-	Output	Rear window	Active	0 V							
(G)	Cround	ger relay control	Caipat	defogger	Not activated	Battery voltage							

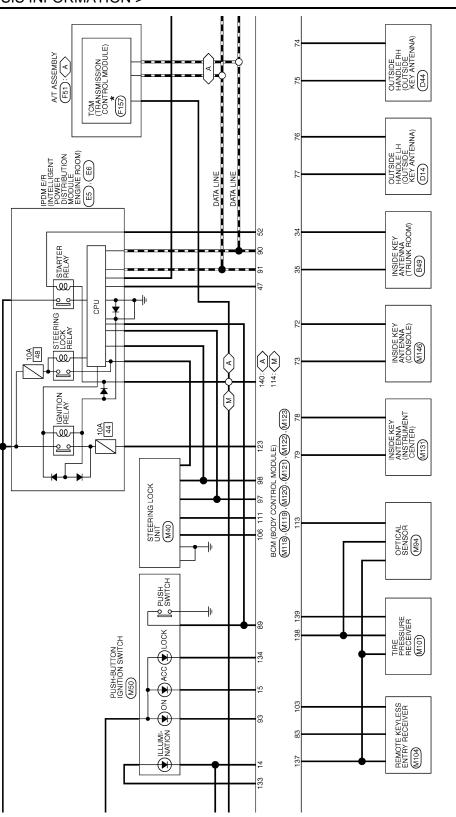
• *1: A/T models

• *2: M/T models



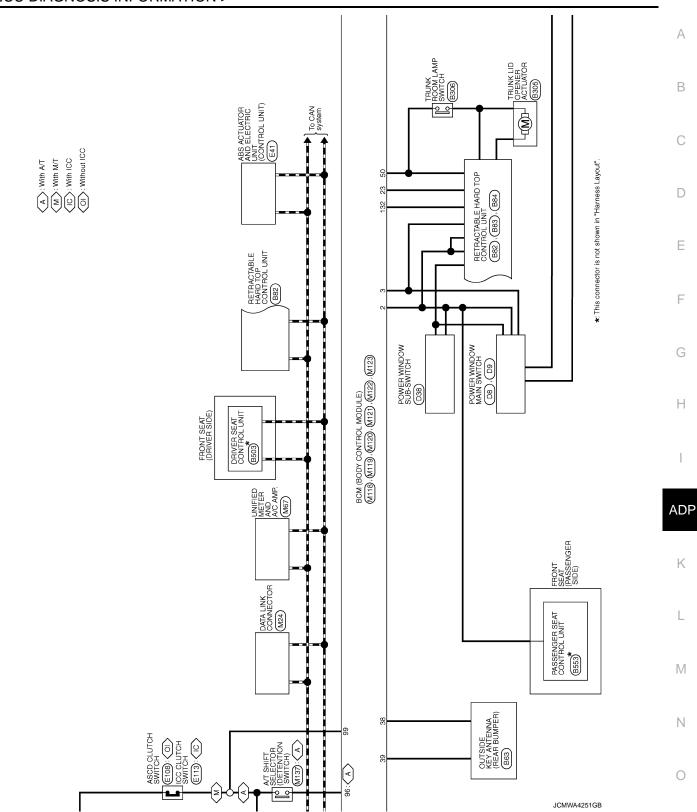
< ECU DIAGNOSIS INFORMATION >





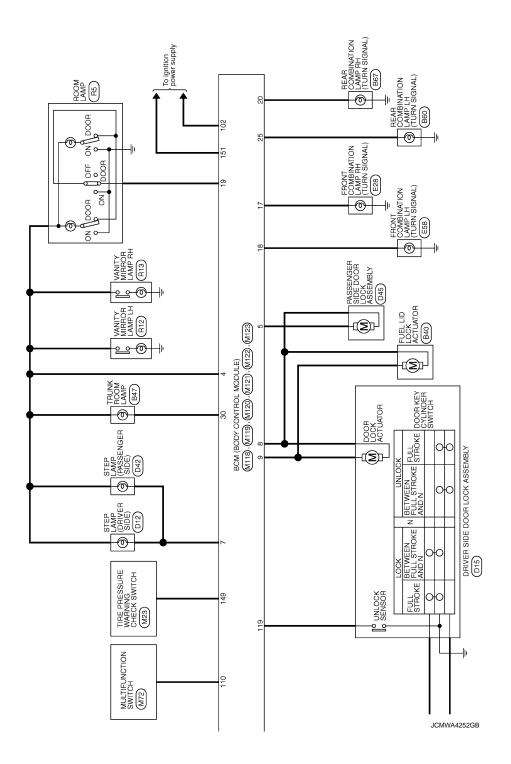
★: This connector is not shown in "Harness Layout".

JCMWA4250GB



< ECU DIAGNOSIS INFORMATION >

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BCM (BOPY CONTROL MODULE)	Connector No. M118 Connector Name BCM (BODY CONTROL MODULE) Connector Type MOGFB-LC Connector Type IIII	Operator No. M119 corrector Name BCM (BODY CONTROL MODULE) Corrector Type NS16FW-CS Corrector Type NS16FW-CS MS1 14 11 12 11 12	19 V ROOM LAMP TIMER CONTROL
Turninal ko.s. Code of Wore Samu Mane [Specification] 2 SB OUTPUT 4 5 L OUTPUT 3 7 O NPUT 3 8 R OUTPUT 5 9 W NPUT 2 10 R NPUT 2 11 R NPUT 1 12 P NPUT 1 13 Y NPUT 2 14 O OUTPUT 1	Terminal No. Color of Nor. Signal Nume (Speedfraction) No. BMT (F/L) 2 Y 3 0 POWER WINDOW POWER SUPPLY (BAT)	Terminal No. Option of Normal Signal Numel Specification] A LQ INTERIOR ROOM LAMP POWER SUPPLY 5 P PASENGRER DOOR UNLOCK OUTPUT 7 Signal Numel Specification] 9 C DRIVER DOOR FUEL LDL LOCK OUTPUT 11 R BATTER DATE LID LOCK OUTPUT 13 B DRIVER DOOR FUEL LD LOCK OUTPUT 14 W PUSH-BUTTORIGNTION SWILL GND 13 B DATA 14 W PUSH-BUTTORIGNTION SWILL GND 15 W TUBM SIGNAL ENFERDING 16 M DATA 17 W PUSH-BUTTORIGNTION SWILL GND 18 O ACL NO 19 N TUBM SIGNAL ENFERDING	
Connector Nu. MI20 Connector Nume BCM (BODY CONTROL MODULE) Connector Type NS12PW-CS CM 22 23 24 25 26 27 28 29 30 31	Corrector Nu. M121 Connector Nume BCM (BODY CONTROL MODULE) Connector Type TH40PCO-NH MA FUED CONTROL MODULE)	Corrector No. M122 Corrector Name BCM (BODY CONTROL MODULE) Corrector Type TH40FB-NH MA TH40FB-NH	83 Y KEVLESS ENTRY RECEIVER COMM 87 Y COMBI SW INPUT 5 88 0 COMBI SW INPUT 3 89 BR COMBI SW INPUT 3 90 P DUSH SW 91 L CANHI SW INPUT 3 92 LG CANH SW INPUT 3 93 V CANH I 94 L CANH I 95 U CANH I 96 P CANH I 97 L CANH I 97 L ACT SHIFT SLEETOR POWER SUPELY
Terminal Pho. Calary of Wire Supral Name [Saucritentica] 20 V TUBN SIGNAL IN FREAPD 23 TUBN LID OPEN OUTPUT 25 23 Y TUBN SIGNAL LH (FREAPD 30 P 30 P TRUMK ROOM LAMP	Terminal Me. Gate of Mera Signal Name [Specification] 34 SB TRUNK ROOM ANT 35 V TRUNK ROOM ANT 36 N TRUNK ROOM ANT 38 B TRUNK ROOM ANT 39 W TRUNK ROOM ANT 30 V TRUNK ROOM ANT 31 Y TRUNK ROOM ANT 32 V TRUNK ROOM LAMP SM 47 Y TRUNK ROOM LAMP SM 50 G TRUNK ROOM LAMP SM 61 SB TRUNK ROOM LAMP SM 61 G HEAN BURFER AUT- 61 G TRUNK LID OPENER SM 61 G HEAN MILL LID OPENER SM	Terminal Gaje of New Signal Name (Spear/Endedu) 72 R ROM ANT?- 73 G ROM ANT?- 74 SESTORER DOOR ANT- 75 BR PASSENGER DOOR ANT- 76 V DENVER DOOR ANT- 77 LG PASSENGER DOOR ANT- 77 LG PASSENGER DOOR ANT- 79 BR PASSENGER DOOR ANT- 79 V DENVER DOOR ANT- 79 LG PASSENGER NOOR ANT- 79 BR ROOM ANTI- 70 LG DENVER DOOR ANT- 71 LG DENVER DOOR ANT- 72 LG MATEAN AMP 80 OR MATS ANTENNA AMP 81 W MATS ANTENNA AMP 82 R IGN RELAV (F/B) CONT	BR P S/L COMTINO 2 99 RR ASCD/TGO CLUTCH SW (Mrn. M/T) 99 R SASD/TGO CLUTCH SW (Mrn. M/T) 90 Y PASSINGER DOOR REQUEST SW 100 Y PASSINGER DOOR REQUEST SW 101 P DRIVER DOOR REQUEST SW 102 D BLOWER DOOR REQUEST SW 103 L KEVLESE ENTITY RELAY CONT 103 L SLUMER FAIL MOOR RELAY CONT 103 L COMBI SW INPUT 1 103 W COMBI SW INPUT 2 103 W COMBI SW INPUT 2 103 W COMBI SW INPUT 2 104 K COMBI SW INPUT 2 110 Y S/L UNIT COMM

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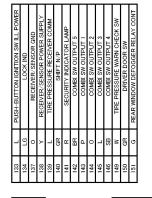
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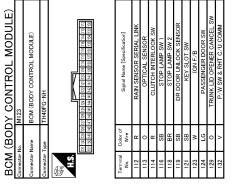
BCM (BODY CONTROL MODULE)

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Revision: 2010 March

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Fail-safe

JCMWA4254GB

INFOID:000000005182678

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actua- tor and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Starter control relay signal Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	 500 ms after the following signal reception status becomes consistent Selector lever P position switch signal P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)
B26E9: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

DTC Inspection Priority Chart

INFOID:000000005182679

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
	B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP	
	 B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION 	
	 B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW 	
	 B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS 	
4	 B260A: IGNITION RELAY B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT 	
	 B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST B2612: S/L STATUS B2614: ACC RELAY CIRC 	
	 B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM 	
	 B2619: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E8: CLUTCH SW 	
	 B26E9: S/L STATUS B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR 	
	U0415: VEHICLE SPEED SIG	

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL	
	C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR	
	C1723: [CODE ERR] RL	
	C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
	B2621: INSIDE ANTENNA	
6	B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

NOTE:

The details of time display are as follows.

• CRNT: A malfunction is detected now.

• PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-15, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	—	—	_	—	BCS-36
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-37
U0415: VEHICLE SPEED SIG	—	—	_	—	BCS-38
B2013: ID DISCORD BCM-S/L	×	×	_		<u>SEC-46</u>
B2014: CHAIN OF S/L-BCM	×	×	_	_	<u>SEC-47</u>
B2190: NATS ANTENNA AMP	×	—	_	—	<u>SEC-38</u>
B2191: DIFFERENCE OF KEY	×	—	_	—	<u>SEC-41</u>
B2192: ID DISCORD BCM-ECM	×	—	_	—	<u>SEC-42</u>
B2193: CHAIN OF BCM-ECM	×	—	_	—	<u>SEC-44</u>
B2195: ANTI SCANNING	×	—	—	—	<u>SEC-45</u>
B2553: IGNITION RELAY	—	×	—	—	PCS-47
B2555: STOP LAMP	—	×		—	<u>SEC-50</u>

Revision: 2010 March

INFOID:000000005182680

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	A
B2556: PUSH-BTN IGN SW	—	×	×	_	<u>SEC-52</u>	В
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-54</u>	
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-55</u>	_
B2562: LOW VOLTAGE	—	×	_	_	BCS-39	С
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-56</u>	
B2602: SHIFT POSITION	×	×	×	_	<u>SEC-59</u>	D
B2603: SHIFT POSI STATUS	×	×	×	—	<u>SEC-61</u>	
B2604: PNP SW	×	×	×	_	<u>SEC-64</u>	
B2605: PNP SW	×	×	×	_	<u>SEC-66</u>	E
B2606: S/L RELAY	×	×	×	_	<u>SEC-68</u>	
B2607: S/L RELAY	×	×	×	—	<u>SEC-69</u>	F
B2608: STARTER RELAY	×	×	×	—	SEC-71	Г
B2609: S/L STATUS	×	×	×	—	<u>SEC-73</u>	
B260A: IGNITION RELAY	×	×	×	_	PCS-49	G
B260B: STEERING LOCK UNIT	_	×	×	_	<u>SEC-77</u>	
B260C: STEERING LOCK UNIT	—	×	×	_	<u>SEC-78</u>	Ц
B260D: STEERING LOCK UNIT	_	×	×	_	<u>SEC-79</u>	- H
B260F: ENG STATE SIG LOST	×	×	×	_	<u>SEC-80</u>	
B2612: S/L STATUS	×	×	×	_	<u>SEC-85</u>	I
B2614: ACC RELAY CIRC	—	×	×	_	PCS-51	
B2615: BLOWER RELAY CIRC	—	×	×	_	PCS-54	
B2616: IGN RELAY CIRC	—	×	×	_	PCS-57	AD
B2617: STARTER RELAY CIRC	×	×	×	_	<u>SEC-89</u>	
B2618: BCM	×	×	×	_	PCS-60	K
B2619: BCM	×	×	×	_	<u>SEC-91</u>	
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-61	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-92</u>	L
B2621: INSIDE ANTENNA	—	×	—	_	DLK-61	
B2622: INSIDE ANTENNA	_	×			DLK-63	M
B2623: INSIDE ANTENNA	_	×			DLK-65	
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-81</u>	N
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-83</u>	1.4
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-84</u>	0
C1704: LOW PRESSURE FL	_	_	_	×		
C1705: LOW PRESSURE FR	_	_	—	×		Ρ
C1706: LOW PRESSURE RR	—	—	—	×	<u>WT-17</u>	
C1707: LOW PRESSURE RL	_	_	_	×	1	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
C1708: [NO DATA] FL	—	—	—	×	
C1709: [NO DATA] FR	_	—	—	×	WT 10
C1710: [NO DATA] RR	_	—	—	×	<u>WT-19</u>
C1711: [NO DATA] RL	_	_	—	×	-
C1712: [CHECKSUM ERR] FL	_	—	—	×	
C1713: [CHECKSUM ERR] FR	—	—	—	×	
C1714: [CHECKSUM ERR] RR	_	—	—	×	<u>WT-22</u>
C1715: [CHECKSUM ERR] RL	_	—	—	×	
C1716: [PRESSDATA ERR] FL	_	—	—	×	
C1717: [PRESSDATA ERR] FR	_	—	—	×	
C1718: [PRESSDATA ERR] RR	_	—	—	×	<u>WT-25</u>
C1719: [PRESSDATA ERR] RL	_	—	—	×	-
C1720: [CODE ERR] FL	—	—	—	×	
C1721: [CODE ERR] FR	_	—	—	×	
C1722: [CODE ERR] RR	_	—	—	×	<u>WT-27</u>
C1723: [CODE ERR] RL	_	—	—	×	-
C1724: [BATT VOLT LOW] FL	_	—	—	×	
C1725: [BATT VOLT LOW] FR		_	—	×	WT 20
C1726: [BATT VOLT LOW] RR		—	—	×	<u>WT-30</u>
C1727: [BATT VOLT LOW] RL	—	—	—	×	-
C1729: VHCL SPEED SIG ERR	—	—	—	×	<u>WT-33</u>
C1734: CONTROL UNIT	—	—	—	×	<u>WT-35</u>

MANUAL FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	
MANUAL FUNCTION DOES NOT OPERATE	A
ALL COMPONENT	_
ALL COMPONENT : Description	B 05141665
All functions do not operate when manually operated.(power seat, tilt & telescopic, and door mirror.	С
ALL COMPONENT : Diagnosis Procedure	05141666
1. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	D
Check driver seat control unit power supply and ground circuit. Refer to <u>ADP-64. "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROUND CIRC	e Suit ^F
Check automatic drive positioner control unit power supply and ground circuit. Refer to <u>ADP-65</u> . "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure". <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION	G
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1. POWER SEAT	ADP
POWER SEAT : Description	05141667
Power seat does not operate when manually operated.	
POWER SEAT : Diagnosis Procedure	05141668
1. CHECK POWER SEAT SWITCH GROUND CIRCUIT	
Check power seat switch ground circuit. Refer to <u>ADP-95, "Diagnosis Procedure"</u> . Is the inspection result normal?	M
YES >> GO TO 2. NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION	Ν
Confirm the operation again.	0
Is the result normal? YES >> Check intermittent incident. Refer to GI-36. "Intermittent Incident". NO >> GO TO 1. STEERING POSITION FUNCTION DOES NOT OPERATE	P
STEERING POSITION FUNCTION DOES NOT OPERATE : Description	05141669
Tilt & telescopic do not operate when manually operated.	

< SYMPTOM DIAGNOSIS >

STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis Procedure

INFOID:000000005141670
1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT
Check tilt & telescopic switch ground circuit. Refer to ADP-96, "Diagnosis Procedure".
Is the inspection result normal?
YES >> GO TO 2.
NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION
Confirm the operation again. <u>Is the result normal?</u>
YES >> Check intermittent incident. Refer to GI-36, "Intermittent Incident".
NO >> GO TO 1. SEAT SLIDING
SEAT SLIDING : Description
Seat sliding alone does not operate when manually operated.
SEAT SLIDING : Diagnosis Procedure
1.CHECK SLIDING MECHANISM
Check for the following.
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation.
Is the inspection result normal?
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.
2. CHECK SLIDING SWITCH
Check sliding switch.
Refer to <u>ADP-67, "Component Function Check"</u> . Is the inspection result normal?
YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.
3. CHECK SLIDING MOTOR
Check sliding motor. Refer to <u>ADP-120, "Component Function Check"</u> .
Is the inspection result normal?
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.
4.CONFIRM THE OPERATION
Check the operation again.
Is the result normal?
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1.
SEAT RECLINING
SEAT RECLINING : Description
Seat reclining only does not operate when manually operated.

ADP-210

< SYMPTOM DIAGNOSIS >	
SEAT RECLINING : Diagnosis Procedure	INFOID:000000005141674
1.CHECK RECLINING MECHANISM	A
Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK RECLINING SWITCH	B
Check reclining switch.	D
Refer to ADP-100, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK RECLINING MOTOR	F
Check reclining motor. Refer to ADP-122, "Component Function Check".	
Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	G
4.CONFIRM THE OPERATION	Н
Check the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1. SEAT LIFTING (FRONT)	ا AD
SEAT LIFTING (FRONT) : Description	INFOID:000000005141675
Seat lifting (front) only does not operate when manually operated.	K
SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:000000005141676
1.CHECK LIFTING (FRONT) MECHANISM	L
Check for the following.Mechanism deformation or pinched foreign materials.Interference with other parts because of poor installation.	M
<u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	Ν
2.CHECK LIFTING SWITCH (FRONT)	0
Check lifting switch (front). Refer to <u>ADP-71, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	P
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3.CHECK LIFTING MOTOR (FRONT)	
Check lifting motor (front). Refer to <u>ADP-124, "Component Function Check"</u> .	

Is the inspection result normal?

MANUAL FUNCTION DOES NOT OPERATE		
< SYMPTOM DIAGNOSIS >		
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.		
4. CONFIRM THE OPERATION		
Check the operation again.		
Is the result normal?		
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> .		
NO >> GO TO 1. SEAT LIFTING (REAR)		
SEAT LIFTING (REAR) : Description	INFOID:000000005141677	
Seat lifting (rear) only does not operate when manually operated.		
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000005141678	
1.CHECK LIFTING (REAR) MECHANISM		
Check for the following.		
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 		
Is the inspection result normal?		
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.		
2.CHECK LIFTING SWITCH (REAR)		
Check lifting switch (rear).		
Refer to <u>ADP-73, "Component Function Check"</u> .		
Is the inspection result normal?		
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		
3. CHECK LIFTING MOTOR (REAR)		
Check lifting motor (rear).		
Refer to <u>ADP-126</u> , "Component Function Check".		
<u>Is the inspection result normal?</u> YES >> GO TO 4.		
NO >> Repair or replace the malfunctioning parts.		
4.CONFIRM THE OPERATION		
Check the operation again.		
<u>Is the result normal?</u>		
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1.		
STEERING TILT		
STEERING TILT : Description	INFOID:000000005141679	
Steering tilt only does not operate when manually operated.		
STEERING TILT : Diagnosis Procedure	INFOID:000000005141680	
	INFOID:00000000141680	
Check for the following.Mechanism deformation or pinched foreign materials.		
 Interference with other parts because of poor installation. 		
Is the inspection result normal?		
YES >> GO TO 2.		

NO >> Repair or replace the malfunctioning parts.	
2.CHECK TILT SWITCH	А
Check tilt switch. Refer to <u>ADP-83, "Component Function Check"</u> .	
Is the inspection result normal?	В
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	С
3.CHECK TILT MOTOR	
Check tilt motor. Refer to <u>ADP-128, "Component Function Check"</u> .	D
Is the inspection result normal?	
YES >> GO TO 4.	_
NO >> Repair or replace the malfunctioning parts.	E
4.CONFIRM THE OPERATION	
Check the operation again. Is the result normal?	F
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> .	
NO >> GO TO 1.	G
STEERING TELESCOPIC	
STEERING TELESCOPIC : Description	Н
Steering telescopic only does not operate when manually operated.	
STEERING TELESCOPIC : Diagnosis Procedure	1
1.CHECK STEERING TELESCOPIC MECHANISM	-
	ADF
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	K
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts. 2.CHECK TELESCOPIC SWITCH	1
	L
Check telescopic switch. Refer to <u>ADP-85, "Component Function Check"</u> .	
Is the inspection result normal?	M
YES >> GO TO 3.	
NO Densir an real-as the meltioning parts	
NO >> Repair or replace the malfunctioning parts.	Ν
3. CHECK TELESCOPIC MOTOR	Ν
3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-130, "Component Function Check"</u> . Is the inspection result normal?	N
3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-130, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 4.	0
3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-130, "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-130, "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.CONFIRM THE OPERATION	0
3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to <u>ADP-130, "Component Function Check"</u> . Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	0
3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-130, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CONFIRM THE OPERATION Check the operation again.	0

MANUAL FUNCTION DOES NOT OPERATE		
< SYMPTOM DIAGNOSIS >		
DOOR MIRROR : Description	INFOID:000000005141683	
Door mirror does not operate when manually operated.		
DOOR MIRROR : Diagnosis Procedure	INFOID:000000005141684	
1. CHECK DOOR MIRROR MECHANISM		
 Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 		
<u>Is the inspection result normal?</u> YES >> GO TO 2.		
NO >> Repair or replace the malfunctioning parts.		
2.CHECK MIRROR SWITCH		
Check mirror switch. Refer to <u>ADP-90, "MIRROR SWITCH : Component Function Check"</u> .		
Is the inspection result normal?		
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		
3. CHECK MIRROR MOTOR		
Check mirror motor. Refer to <u>ADP-132, "Component Function Check"</u> .		
Is the inspection result normal?		
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.		
4.CONFIRM THE OPERATION		
Check the operation again.		
Is the result normal?		

- YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u>.
- NO >> GO TO 1.

MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
MEMORY FUNCTION DOES NOT OPERATE	
ALL COMPONENT	A
ALL COMPONENT : Description	INFOID:000000005141685
All functions do not operate when memory operated. (power seat, tilt & telescopic, and door mir	
ALL COMPONENT : Diagnosis Procedure	INFOID:000000005141686
1.CHECK MANUAL OPERATION	
Check manual operation.	D
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-209, "ALL COMPONENT : Diagnosis Procedure"</u>	E
2.PERFORM MEMORY STORING PROCEDURE	L
Perform memory storing procedure. Refer to <u>ADP-10, "MEMORY STORING : Special Repair Requirement"</u> .	F
Is the inspection result normal?	
YES >> Memory function is normal.	G
NO $>>$ GO TO 3.	9
3.CHECK SEAT MEMORY SWITCH	
Check seat memory switch. Refer to <u>ADP-87, "Component Function Check"</u> .	Н
Is the inspection result normal?	
YES >> GO TO 4. NO >> Replace seat memory switch.	I
4. CONFIRM THE OPERATION	
Confirm the operation again.	AD
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> .	K
NO >> GO TO 1. SEAT SLIDING	
SEAT SLIDING : Description	INFOID:000000005141687
Seat sliding only does not operate when memory operated.	
SEAT SLIDING : Diagnosis Procedure	INFOID:000000005141688
	INI CID.000000000147000
1.CHECK MANUAL OPERATION	N
Check manual operation.	1.4
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-210, "SEAT SLIDING : Diagnosis Procedure"</u>	0
2. CHECK SLIDING SENSOR	
Check sliding sensor.	P
Refer to <u>ADP-97. "Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3. CONFIRM THE OPERATION	

Check the operation again.

MEMORY FUNCT	ION DOES NOT	OPERATE
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< SYMPTOM DIAGNOSIS >

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u>.

NO >> GO TO 1.

SEAT RECLINING

SEAT RECLINING : Description

Seat reclining only does not operate when memory operated.

SEAT RECLINING : Diagnosis Procedure

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

2. CHECK RECLINING SENSOR

Check reclining sensor. Refer to <u>ADP-100, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-36. "Intermittent Incident"</u>.

NO >> GO TO 1. SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT) : Description

Seat lifting (front) only does not operate when memory operated.

SEAT LIFTING (FRONT) : Diagnosis Procedure

1.CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-211, "SEAT LIFTING (FRONT) : Diagnosis Procedure"

2. CHECK LIFTING SENSOR (FRONT)

Check lifting sensor (front). Refer to <u>ADP-103, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 ${f 3.}$ CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u>.

NO >> GO TO 1.

SEAT LIFTING (REAR)

INFOID:000000005141691

INFOID:000000005141692

INFOID:000000005141689

INFOID:000000005141690

MEMORY FUNCTION DOES NOT OPERATE

WEWORT FUNCTION DOES NOT OPERATE		
< SYMPTOM DIAGNOSIS >		
SEAT LIFTING (REAR) : Description	INFOID:000000005141693	А
Seat lifting (rear) only does not operate when memory operated.		
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000005141694	В
1.CHECK MANUAL OPERATION		
Check manual operation.		С
Is the inspection result normal?		0
YES >> GO TO 2. NO >> Refer to <u>ADP-212, "SEAT LIFTING (REAR) : Diagnosis Procedure"</u>		
2. CHECK LIFTING SENSOR (REAR)		D
Check lifting sensor (rear).		
Refer to ADP-106, "Component Function Check".		Е
Is the inspection result normal?		
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		F
3. CONFIRM THE OPERATION		
Check the operation again.		G
Is the result normal?		0
 YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u>. NO >> GO TO 1. 		
STEERING TELESCOPIC		Н
STEERING TELESCOPIC : Description	INFOID:000000005141695	
Steering telescopic only does not operate when memory operated.		
STEERING TELESCOPIC : Diagnosis Procedure	INFOID:000000005141696	AD
1.CHECK MANUAL OPERATION		
Check manual operation.		Κ
Is the inspection result normal?		
YES >> GO TO 2. NO >> Refer to <u>ADP-213, "STEERING TELESCOPIC : Diagnosis Procedure"</u>		L
2.CHECK TELESCOPIC SENSOR		
Check steering telescopic sensor.		М
Refer to <u>ADP-112</u> , "Component Function Check".		
<u>Is the inspection result normal?</u> YES >> GO TO 3.		
NO >> Repair or replace the malfunctioning parts.		Ν
3. CONFIRM THE OPERATION		
Check the operation again.		0
Is the result normal?		
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1.		Ρ
STEERING TILT		
STEERING TILT : Description		
	INFOID:000000005141697	

Steering tilt only does not operate when memory operated.

MEMORY FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

STEERING TILT : Diagnosis Procedure	INFOID:000000005141698
1. CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Refer to <u>ADP-212</u> , " <u>STEERING TILT</u> : <u>Diagnosis Procedure</u> "	
2.CHECK TILT SENSOR	
Check steering tilt sensor.	
Refer to <u>ADP-109, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3. CONFIRM THE OPERATION	
Check the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u> . NO >> GO TO 1.	
NO >> GO TO 1. DOOR MIRROR	
DOOR MIRROR : Description	INFOID:000000005141699
Door mirror does not operate when memory operated.	
DOOR MIRROR : Diagnosis Procedure	INFOID:000000005141700
1.CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Refer to <u>ADP-214, "DOOR MIRROR : Diagnosis Procedure"</u>	
2.CHECK MIRROR SENSOR	
Check mirror sensor.	
 Refer to <u>ADP-115</u>, "DRIVER SIDE : Component Function Check". (Driver side) Refer to <u>ADP-117</u>, "PASSENGER SIDE : Component Function Check". (Passenger side) 	
Is the inspection result normal?	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u>.

NO >> GO TO 1.

MEMORY INDICATE DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >	
MEMORY INDICATE DOES NOT ILLUMINATE	А
Diagnosis Procedure	
1.CHECK MEMORY INDICATOR	В
Check memory indicator. Refer to <u>ADP-134, "Component Function Check"</u> .	
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	С
2.CONFIRM THE OPERATION	D
Confirm the operation again. <u>Is the result normal?</u>	Е
 YES >> Check intermittent incident. Refer to <u>GI-36. "Intermittent Incident"</u>. NO >> GO TO 1. 	F
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SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000005141702

1.CHECK SYSTEM SETTING

Check system setting.

Refer to ADP-11, "SYSTEM SETTING : Special Repair Requirement".

Is the inspection result normal?

YES >> Synchronization function is normal.

NO >> GO TO 2.

2. CHECK ALL FUNCTIONS MAMUAL OPERATION

Check all functions manual operation.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to <u>ADP-209</u>, "ALL COMPONENT : Diagnosis Procedure".

3. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-36. "Intermittent Incident"</u>.
- NO >> GO TO 1.

<u>SYMPTOM DIAGNOSIS ></u> POWER WALK-IN FUNCTION DOES NOT OPERATE	
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Diagnosis Procedure	
1.CHECK POWER WALK-IN FUNCTION	В
Check power walk-in function. Refer to <u>ADP-39</u> , "POWER WALK-IN FUNCTION : System Description".	
Is the inspection result normal?	С
YES >> Power walk-in function is OK. NO >> GO TO 2.	
2. PERFORM INITIALIZATION PROCEDURE	D
 Perform initialization procedure. Refer to <u>ADP-10, "SYSTEM INITIALIZATION : Special Repair Requirement"</u>. Check power walk-in function. 	E
Refer to <u>ADP-39, "POWER WALK-IN FUNCTION : System Description"</u> . <u>Is the inspection result normal?</u>	
YES >> Power walk-in function is normal. NO >> GO TO 3.	F
3. CHECK POWER WALK-IN SWITCH	G
Check power walk-in switch. Refer to ADP-81, "Component Function Check".	0
Is the inspection result normal?	Н
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4. CHECK SEAT BELT BUCKLE SWITCH	Ι
Check seat belt buckle switch. Refer to ADP-77, "Component Function Check".	
Is the inspection result normal?	ADF
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
5. CHECK FORWARD SWITCH	Κ
Check forward switch. Refer to ADP-75, "Component Function Check".	L
Is the inspection result normal?	
YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.	Μ
6. CHECK SLIDING LIMIT SWITCH	1 1 1
Check sliding limit switch. Refer to ADP-79, "Component Function Check".	Ν
Is the inspection result normal?	
YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts.	0
7. CHECK DRIVER SIDE DOOR SWITCH	
Check driver side door switch.	Ρ
Refer to DLK-70, "Component Function Check"	
<u>Is the inspection result normal?</u> YES >> GO TO 8.	
NO >> Repair or replace the malfunctioning parts.	
8. CONFIRM THE OPERATION	
Check the operation again.	

Revision: 2010 March

POWER WALK-IN FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Refer to ADP-39, "POWER WALK-IN FUNCTION : System Description".

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-36, "Intermittent Incident"</u>.
- NO >> GO TO 1.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

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Diagnosis Procedure	INFOID:000000005141704	A
1. CHECK DOOR LOCK FUNCTION		В
Check door lock function. Refer to <u>DLK-7, "Work Flow"</u> .		
Is the inspection result normal?		С
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.PERFORM MEMORY STORING PROCEDURE		D
 Perform memory storing procedure. Refer to <u>ADP-10, "MEMORY STORING : Special Repair Requirement"</u>. Check Intelligent Key interlock function. Refer to <u>ADP-34, "INTELLIGENT KEY INTERLOCK FUNCTION : System Description"</u>. 		E
Is the inspection result normal?		F
YES >> Intelligent Key inter lock function is normal. NO >> GO TO 1.		1
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< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

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The following symptoms are normal operations, and they do not indicate a malfunction.

Symptom	Cause	Action to take	Reference page
Seat synchronization function does not operate.		<u>ADP-24</u>	
	Seat adjustment value has exceed any of the values below. • Seat sliding: 76 mm • Seat reclining: 9.1 degrees • Seat lifting (rear): 20 mm	_	_
Side support or lumbar support does not perform memory operation.	The side support and the lumbar support are controlled independently with no link to the automatic drive positioner system.	_	Side support: <u>SE-24</u>
			Lumbar support: <u>SE-27</u>
Memory function, power walk-in function, seat synchronization function, or Intelligent Key inter- lock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: <u>ADP-29</u>
			Power walk-in function: <u>ADP-39</u>
			Seat synchronization function: <u>ADP-24</u>
			Intelligent Key interlock function: <u>ADP-34</u>

< PRECAUTION > PRECAUTION PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Service Procedure Precautions for Models with a Pop-up Roll Bar

WARNING:

- Risk of passenger injury or death may increase if the pop-up roll bar does not deploy during a roll over collision. In order to reduce the chance of an incident where the pop-up roll bar is inoperative, all maintenance must be performed by a NISSAN or INFINITI dealer.
- Before removing and installing the pop-up roll bar component parts and harness, always turn the ignition switch OFF, disconnect the battery negative terminal, and wait for 3 minutes or more. (The purpose of this operation is to discharge electricity that is accumulated in the auxiliary power supply circuit in the air bag diagnosis sensor unit.)
- When repairing, removing, and installing a pop-up roll bar, always refer to SRS AIR BAG and SRS AIR BAG CONTROL warnings in the Service Manual.

Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Service

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- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.

ADP-225

PRECAUTIONS

< PRECAUTION >

- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

Work

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
 - Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-223, "Exploded View".

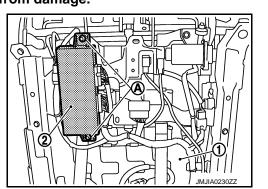
Removal and Installation

REMOVAL

CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove driver seat (1). Refer to <u>SE-234, "Removal and Installa-</u> tion".
- 2. Remove mounting bolts (A).
- 3. Remove driver seat control unit (2).



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. NOTE:

After installing driver seat, perform additional service when replacing control unit. Refer to <u>ADP-9</u>, "<u>ADDI-</u><u>TIONAL SERVICE WHEN REPLACING CONTROL UNIT</u> : Special Repair Requirement".

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

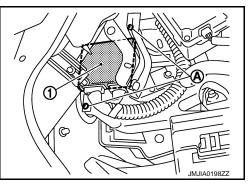
Refer to IP-12, "Exploded View".

Removal and Installation

REMOVAL

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove instrument driver lower panel. Refer to <u>IP-13, "Removal</u> and Installation".
- 2. Remove screws (A).
- 3. Remove automatic drive positioner control unit (1).



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. INFOID:000000005141712

SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-12, "Exploded View"

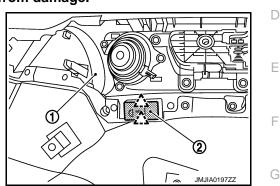
Removal and Installation

REMOVAL CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove front door finisher (1). Refer to <u>INT-12, "Removal and</u> <u>Installation"</u>.
- 2. Press pawls and remove seat memory switch (2) from front door finisher (1).

A Pawl



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place.

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< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View

Refer to SE-223, "Exploded View".

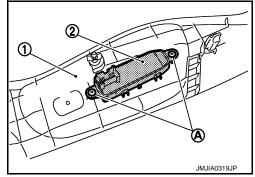
Removal and Installation

REMOVAL

CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove seat cushion outer finisher (1). Refer to <u>SE-234</u>, <u>"Removal and Installation"</u>.
- 2. Remove screws (A).
- Remove power seat switch (2) from seat cushion outer finisher (1).



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. INFOID:000000005141716

SIDE SUPPORT SWITCH

< REMOVAL AND INSTALLATION >

SIDE SUPPORT SWITCH

Exploded View

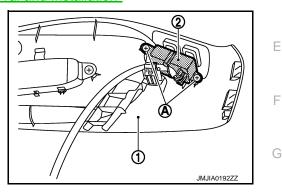
Refer to SE-223, "Exploded View"

Removal and Installation

REMOVAL CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove seat cushion outer finisher (1). Refer to SE-234, "Removal and Installation"
- 2. Remove screws (A).
- 3. Remove side support switch (2) from seat cushion outer finisher.



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place.

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TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-12, "Exploded View".

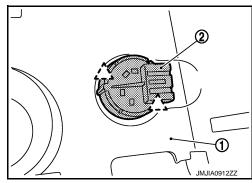
Removal and Installation

REMOVAL CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove steering column mask (1). Refer to IP-13, "Removal and Installation".
- 2. Press pawls and remove tilt & telescopic switch (2) from steering _____

2. Pawl



INSTALLATION Install in reverse order of removal. CAUTION: Be sure to clump the harness to the right place. INFOID:000000005141720